

US008689123B2

(12) **United States Patent**
Zaman et al.

(10) **Patent No.:** **US 8,689,123 B2**
(45) **Date of Patent:** **Apr. 1, 2014**

(54) **APPLICATION REPORTING IN AN APPLICATION-SELECTABLE USER INTERFACE**

(75) Inventors: **Nazia Zaman**, Kirkland, WA (US); **Adrian J. Garside**, Sammamish, WA (US); **Christopher T. Bush**, Redmond, WA (US); **Lindsey R. Barcheck**, Seattle, WA (US); **Chantal M. Leonard**, Seattle, WA (US); **Jesse Clay Satterfield**, Seattle, WA (US)

(73) Assignee: **Microsoft Corporation**, Redmond, WA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 176 days.

(21) Appl. No.: **12/978,184**

(22) Filed: **Dec. 23, 2010**

(65) **Prior Publication Data**

US 2012/0167011 A1 Jun. 28, 2012

(51) **Int. Cl.**
G06F 13/00 (2006.01)
G06F 15/00 (2006.01)

(52) **U.S. Cl.**
USPC **715/767**; 715/808

(58) **Field of Classification Search**
USPC 715/751-753, 763-765, 716, 727, 767, 715/854, 808, 810
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,823,283 A 4/1989 Diehm et al.
5,045,997 A 9/1991 Watanabe

5,046,001 A 9/1991 Barker et al.
5,189,732 A 2/1993 Kondo
5,258,748 A 11/1993 Jones
5,297,032 A 3/1994 Trojan et al.
5,321,750 A 6/1994 Nadan
5,339,392 A 8/1994 Risberg et al.
5,432,932 A 7/1995 Chen et al.
5,463,725 A 10/1995 Henckel et al.
5,485,197 A 1/1996 Hoarty
5,495,566 A 2/1996 Kwatinetz
5,515,495 A 5/1996 Ikemoto
5,574,836 A 11/1996 Broemmelsiek
5,598,523 A 1/1997 Fujita
5,611,060 A 3/1997 Belfiore et al.

(Continued)

FOREIGN PATENT DOCUMENTS

EP 0583060 2/1994
EP 1752868 2/2007

(Continued)

OTHER PUBLICATIONS

Bates, John, "A Framework to Support Large-Scale Active Applications", Retrieved at << <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.48.1690&rep=rep1&type=pdf> >>, Proceedings of the 7th workshop on ACM SIGOPS, 1996, pp. 8.

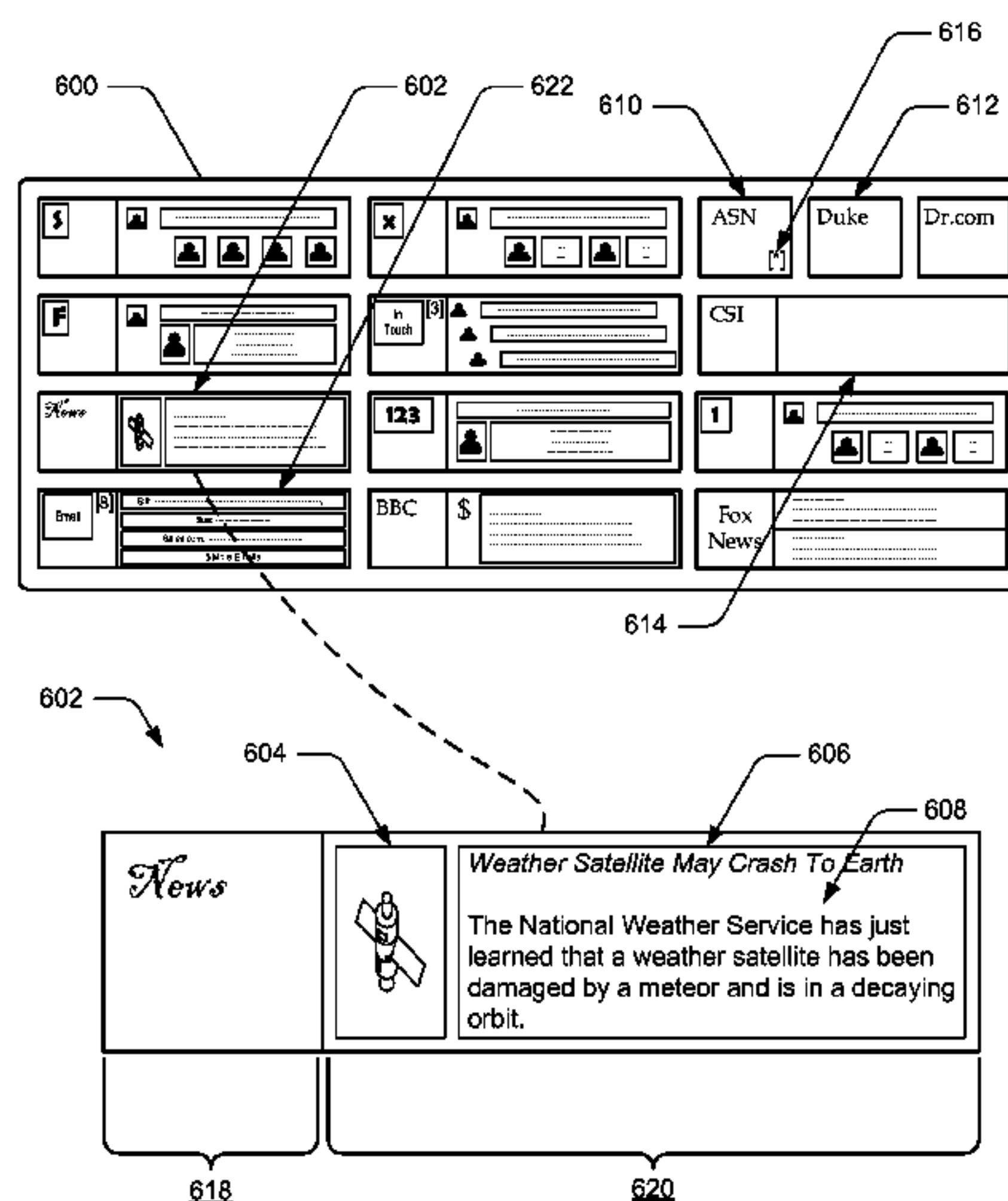
(Continued)

Primary Examiner — Cao "Kevin" Nguyen
(74) *Attorney, Agent, or Firm* — Sung Kim; Andrew Sanders; Micky Minhas

(57) **ABSTRACT**

This document describes techniques for application reporting in an application-selectable user interface. These techniques permit a user to view reports for applications in a user interface through which these applications may be selected. By so doing, a user may quickly and easily determine which applications to select based on their respective reports and then select them or their content through the user interface.

16 Claims, 11 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

5,623,613	A	4/1997	Rowe et al.	6,873,329	B2	3/2005	Cohen et al.
5,640,176	A	6/1997	Mundt et al.	6,876,312	B2	4/2005	Yu
5,650,827	A	7/1997	Tsumori et al.	6,885,974	B2	4/2005	Holle
5,657,049	A	8/1997	Ludolph et al.	6,904,597	B2	6/2005	Jin
5,675,329	A	10/1997	Barker	6,920,445	B2	7/2005	Bae
5,687,331	A	11/1997	Volk et al.	6,938,101	B2	8/2005	Hayes et al.
5,712,995	A	1/1998	Cohn	6,961,731	B2	11/2005	Holbrook
5,771,042	A	6/1998	Santos-Gomez	6,971,067	B1	11/2005	Karson et al.
5,793,415	A	8/1998	Gregory et al.	6,972,776	B2	12/2005	Davis et al.
5,819,284	A	10/1998	Farber et al.	6,975,306	B2	12/2005	Hinckley
5,844,547	A	12/1998	Minakuchi et al.	6,976,210	B1	12/2005	Silva et al.
5,860,073	A	1/1999	Ferrel et al.	6,978,303	B1	12/2005	McCreech et al.
5,905,492	A	5/1999	Straub et al.	6,983,310	B2	1/2006	Rouse
5,914,720	A	6/1999	Maples et al.	6,987,991	B2	1/2006	Nelson
5,940,076	A	8/1999	Sommers et al.	7,013,041	B2	3/2006	Miyamoto
5,959,621	A	9/1999	Nawaz et al.	7,017,119	B1	3/2006	Johnston et al.
5,963,204	A	10/1999	Ikeda et al.	7,019,757	B2	3/2006	Brown et al.
6,008,809	A	12/1999	Brooks	7,028,264	B2	4/2006	Santoro et al.
6,008,816	A	12/1999	Eisler	7,032,187	B2	4/2006	Keely, Jr. et al.
6,009,519	A	12/1999	Jones et al.	7,036,090	B1	4/2006	Nguyen
6,011,542	A	1/2000	Durrani et al.	7,036,091	B1	4/2006	Nguyen
6,028,600	A	2/2000	Rosin et al.	7,042,460	B2	5/2006	Hussain et al.
6,057,839	A	5/2000	Advani et al.	7,051,291	B2	5/2006	Sciammarella et al.
6,064,383	A	5/2000	Skelly	7,058,955	B2	6/2006	Porkka
6,104,418	A	8/2000	Tanaka et al.	7,065,385	B2	6/2006	Jarrad et al.
6,108,003	A	8/2000	Hall, Jr. et al.	7,065,386	B1	6/2006	Smethers
6,111,585	A	8/2000	Choi	7,075,535	B2	7/2006	Aguera y Arcas
6,115,040	A	9/2000	Bladow et al.	7,089,507	B2	8/2006	Lection et al.
6,166,736	A	12/2000	Hugh	7,091,998	B2	8/2006	Miller-Smith
6,188,405	B1	2/2001	Czerwinski et al.	7,093,201	B2	8/2006	Duarte
6,211,921	B1	4/2001	Cherian et al.	7,106,349	B2	9/2006	Baar et al.
6,212,564	B1	4/2001	Harter et al.	7,111,044	B2	9/2006	Lee
6,216,141	B1	4/2001	Straub et al.	7,133,707	B1	11/2006	Rak
6,266,098	B1	7/2001	Cove et al.	7,133,859	B1	11/2006	Wong
6,278,448	B1	8/2001	Brown et al.	7,139,800	B2	11/2006	Bellotti et al.
6,281,940	B1	8/2001	Sciammarella	7,146,573	B2	12/2006	Brown et al.
6,311,058	B1	10/2001	Wecker et al.	7,155,729	B1	12/2006	Andrew et al.
6,369,837	B1	4/2002	Schirmer	7,158,123	B2	1/2007	Myers et al.
6,385,630	B1	5/2002	Ejerhed	7,158,135	B2	1/2007	Santodomingo et al.
6,396,963	B2	5/2002	Shaffer	7,178,111	B2	2/2007	Glein et al.
6,411,307	B1	6/2002	Rosin et al.	7,210,099	B2	4/2007	Rohrbaugh et al.
6,424,338	B1	7/2002	Andersone	7,216,588	B2	5/2007	Suess
6,426,753	B1	7/2002	Migdal	7,249,326	B2	7/2007	Stoakley et al.
6,433,789	B1	8/2002	Rosman	7,262,775	B2	8/2007	Calkins et al.
6,448,987	B1	9/2002	Easty et al.	7,263,668	B1	8/2007	Lentz
6,449,638	B1	9/2002	Wecker et al.	7,280,097	B2	10/2007	Chen
6,456,334	B1	9/2002	Duhault	7,283,620	B2	10/2007	Adamczyk
6,489,977	B2	12/2002	Sone	7,289,806	B2	10/2007	Morris et al.
6,505,243	B1	1/2003	Lortz	7,296,184	B2	11/2007	Derks et al.
6,507,643	B1	1/2003	Groner	7,296,242	B2	11/2007	Agata et al.
6,510,144	B1	1/2003	Dommety et al.	7,310,100	B2	12/2007	Hussain
6,510,466	B1	1/2003	Cox et al.	7,333,092	B2	2/2008	Zadesky et al.
6,510,553	B1	1/2003	Hazra	7,333,120	B2	2/2008	Venolia
6,538,635	B1	3/2003	Ringot	7,336,263	B2	2/2008	Valikangas
6,570,597	B1	5/2003	Seki et al.	7,369,647	B2	5/2008	Gao et al.
6,577,323	B1	6/2003	Jamieson et al.	7,376,907	B2	5/2008	Santoro et al.
6,577,350	B1	6/2003	Proehl et al.	7,386,807	B2	6/2008	Cummins et al.
6,591,244	B2	7/2003	Jim et al.	7,388,578	B2	6/2008	Tao
6,597,374	B1	7/2003	Baker et al.	7,403,191	B2	7/2008	Sinclair
6,628,309	B1	9/2003	Dodson et al.	7,408,538	B2	8/2008	Hinckley et al.
6,636,246	B1	10/2003	Gallo et al.	7,412,663	B2	8/2008	Lindsay et al.
6,662,023	B1	12/2003	Helle	7,433,920	B2	10/2008	Blagsvedt et al.
6,690,387	B2	2/2004	Zimmerman et al.	7,447,520	B2	11/2008	Scott
6,697,825	B1	2/2004	Underwood et al.	7,461,151	B2	12/2008	Colson et al.
6,707,449	B2	3/2004	Hinckley et al.	7,469,380	B2	12/2008	Wessling et al.
6,710,771	B1	3/2004	Yamaguchi et al.	7,469,381	B2	12/2008	Ording
6,721,958	B1	4/2004	Dureau	7,478,326	B2	1/2009	Holecsek et al.
6,724,403	B1	4/2004	Santoro et al.	7,479,949	B2	1/2009	Jobs
6,784,925	B1	8/2004	Tomat	7,480,870	B2	1/2009	Anzures
6,798,421	B2	9/2004	Baldwin	7,483,418	B2	1/2009	Maurer
6,801,203	B1	10/2004	Hussain	7,487,467	B1	2/2009	Kawahara et al.
6,807,558	B1	10/2004	Hassett et al.	7,496,830	B2	2/2009	Rubin
6,832,355	B1	12/2004	Duperrouzel et al.	7,512,966	B2	3/2009	Lyons, Jr. et al.
6,857,104	B1	2/2005	Cahn	7,577,918	B2	8/2009	Lindsay
6,865,297	B2	3/2005	Loui	7,581,034	B2	8/2009	Polivy et al.
				7,593,995	B1	9/2009	He et al.
				7,599,790	B2	10/2009	Rasmussen et al.
				7,600,189	B2	10/2009	Fujisawa
				7,600,234	B2	10/2009	Dobrowski et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

7,606,714	B2	10/2009	Williams et al.	2003/0222907	A1	12/2003	Heikes et al.
7,607,106	B2	10/2009	Ernst et al.	2003/0225846	A1	12/2003	Heikes et al.
7,610,563	B2	10/2009	Nelson et al.	2004/0066414	A1	4/2004	Czerwinski et al.
7,619,615	B1	11/2009	Donoghue	2004/0068543	A1	4/2004	Seifert
7,640,518	B2	12/2009	Forlines et al.	2004/0078299	A1	4/2004	Down-Logan
7,653,883	B2	1/2010	Hotelling et al.	2004/0111673	A1	6/2004	Bowman et al.
7,657,849	B2	2/2010	Chaudhri et al.	2004/0185883	A1	9/2004	Rukman
7,663,607	B2	2/2010	Hotelling et al.	2004/0212586	A1	10/2004	Denny
7,664,067	B2	2/2010	Pointer	2004/0217954	A1	11/2004	O’Gorman et al.
7,671,756	B2	3/2010	Herz et al.	2004/0237048	A1	11/2004	Tojo et al.
7,702,683	B1	4/2010	Kirshenbaum	2004/0250217	A1	12/2004	Tojo et al.
7,755,674	B2	7/2010	Kaminaga	2005/0005241	A1	1/2005	Hunleth et al.
7,834,861	B2	11/2010	Lee	2005/0028208	A1	2/2005	Ellis
7,877,707	B2	1/2011	Westerman et al.	2005/0044058	A1	2/2005	Matthews et al.
7,880,728	B2	2/2011	De Los Reyes et al.	2005/0054384	A1	3/2005	Pasquale et al.
7,889,180	B2	2/2011	Byun et al.	2005/0060647	A1	3/2005	Doan et al.
7,895,309	B2	2/2011	Belali et al.	2005/0060665	A1	3/2005	Rekimoto
7,924,271	B2	4/2011	Christie et al.	2005/0079896	A1	4/2005	Kokko et al.
7,933,632	B2	4/2011	Flynt et al.	2005/0085215	A1	4/2005	Kokko
7,962,281	B2	6/2011	Rasmussen et al.	2005/0085272	A1	4/2005	Anderson et al.
7,983,718	B1	7/2011	Roka	2005/0108655	A1	5/2005	Andrea et al.
7,987,431	B2	7/2011	Santoro et al.	2005/0114788	A1	5/2005	Fabritius
8,006,276	B2	8/2011	Nakagawa et al.	2005/0120306	A1	6/2005	Klassen et al.
8,065,628	B2	11/2011	Oshiro et al.	2005/0120306	A1	6/2005	Lee et al.
8,086,275	B2	12/2011	Wykes	2005/0143138	A1	6/2005	Todd et al.
8,108,781	B2 *	1/2012	Laansoo et al. 715/751	2005/0182798	A1	8/2005	Todd et al.
8,131,808	B2	3/2012	Aoki et al.	2005/0183021	A1	8/2005	Allen et al.
8,150,924	B2	4/2012	Buchheit et al.	2005/0184999	A1	8/2005	Daioku
8,175,653	B2	5/2012	Smuga	2005/0198159	A1	9/2005	Kirsch
8,176,438	B2	5/2012	Zaman et al.	2005/0198584	A1	9/2005	Matthews et al.
8,225,193	B1	7/2012	Kleinschnitz et al.	2005/0200762	A1	9/2005	Barletta et al.
8,238,876	B2	8/2012	Teng	2005/0216300	A1	9/2005	Appelman et al.
8,245,152	B2	8/2012	Brunner et al.	2005/0223057	A1	10/2005	Buchheit et al.
8,250,494	B2	8/2012	Butcher	2005/0223069	A1	10/2005	Cooperman et al.
8,255,473	B2	8/2012	Eren et al.	2005/0232166	A1	10/2005	Nierhaus
8,255,812	B1 *	8/2012	Parparita et al. 715/762	2005/0250547	A1	11/2005	Salman et al.
8,269,736	B2	9/2012	Wilairat	2005/0268237	A1	12/2005	Crane et al.
8,429,565	B2	4/2013	Agarawala et al.	2005/0273614	A1	12/2005	Ahuja
8,548,431	B2	10/2013	Teng et al.	2005/0280719	A1	12/2005	Kim
8,560,959	B2	10/2013	Zaman et al.	2006/0004685	A1	1/2006	Pyhalammi et al.
8,589,815	B2	11/2013	Fong et al.	2006/0010394	A1	1/2006	Chaudhri et al.
8,612,874	B2	12/2013	Zaman et al.	2006/0015736	A1	1/2006	Callas et al.
2001/0022621	A1	9/2001	Squibbs	2006/0015812	A1	1/2006	Cunningham
2002/0000963	A1	1/2002	Yoshida et al.	2006/0026013	A1	2/2006	Kraft
2002/0018051	A1	2/2002	Singh	2006/0026521	A1	2/2006	Hotelling et al.
2002/0035607	A1	3/2002	Checkoway et al.	2006/0036425	A1	2/2006	Le Cocq et al.
2002/0054117	A1	5/2002	van Dantzich et al.	2006/0048073	A1	3/2006	Jarrett et al.
2002/0060701	A1	5/2002	Naughton et al.	2006/0048101	A1	3/2006	Krassovsky et al.
2002/0070961	A1	6/2002	Xu et al.	2006/0059430	A1	3/2006	Bells
2002/0077156	A1	6/2002	Smethers	2006/0070005	A1	3/2006	Gilbert et al.
2002/0091755	A1	7/2002	Narin	2006/0074735	A1	4/2006	Shukla et al.
2002/0097264	A1	7/2002	Dutta et al.	2006/0074771	A1	4/2006	Kim
2002/0105531	A1	8/2002	Niemi	2006/0075360	A1	4/2006	Bixler
2002/0115476	A1	8/2002	Padawer et al.	2006/0103623	A1	5/2006	Davis
2002/0128036	A1	9/2002	Yach et al.	2006/0107231	A1	5/2006	Matthews et al.
2002/0129061	A1	9/2002	Swart et al.	2006/0112354	A1	5/2006	Park et al.
2002/0138248	A1	9/2002	Corston-Oliver et al.	2006/0129543	A1	6/2006	Bates et al.
2002/0142762	A1	10/2002	Chmaytelli et al.	2006/0135220	A1	6/2006	Kim et al.
2002/0145631	A1	10/2002	Arbab et al.	2006/0136773	A1	6/2006	Kespohl et al.
2002/0152305	A1	10/2002	Jackson et al.	2006/0152803	A1	7/2006	Provitola
2002/0154176	A1	10/2002	Barksdale et al.	2006/0172724	A1	8/2006	Linkert et al.
2002/0161634	A1	10/2002	Kaars	2006/0173911	A1	8/2006	Levin et al.
2002/0186251	A1	12/2002	Himmel et al.	2006/0184901	A1	8/2006	Dietz
2002/0194385	A1	12/2002	Linder et al.	2006/0190833	A1	8/2006	SanGiovanni et al.
2003/0003899	A1	1/2003	Tashiro et al.	2006/0199598	A1	9/2006	Lee et al.
2003/0008686	A1	1/2003	Park et al.	2006/0212806	A1	9/2006	Griffin et al.
2003/0011643	A1	1/2003	Nishihata	2006/0218234	A1	9/2006	Deng et al.
2003/0020671	A1	1/2003	Santoro et al.	2006/0218501	A1	9/2006	Wilson et al.
2003/0040300	A1	2/2003	Bodic	2006/0224993	A1	10/2006	Wong et al.
2003/0046396	A1	3/2003	Richter et al.	2006/0246955	A1	11/2006	Nirhamo
2003/0073414	A1	4/2003	Capps	2006/0253801	A1	11/2006	Okaro et al.
2003/0096604	A1	5/2003	Vollandt	2006/0259870	A1	11/2006	Hewitt et al.
2003/0105827	A1	6/2003	Tan et al.	2006/0259873	A1	11/2006	Mister
2003/0135582	A1	7/2003	Allen et al.	2006/0262134	A1	11/2006	Hamiter et al.
2003/0187996	A1	10/2003	Cardina et al.	2006/0268100	A1	11/2006	Karukka et al.
				2006/0271520	A1	11/2006	Ragan
				2006/0281448	A1	12/2006	Plestid et al.
				2006/0293088	A1	12/2006	Kokubo
				2006/0294063	A1	12/2006	Ali et al.
				2006/0294396	A1	12/2006	Witman

(56)

References Cited

U.S. PATENT DOCUMENTS

2007/0005716	A1	1/2007	LeVasseur et al.	2008/0114535	A1	5/2008	Nesbitt
2007/0006094	A1	1/2007	Canfield et al.	2008/0122796	A1	5/2008	Jobs
2007/0011610	A1	1/2007	Sethi et al.	2008/0132252	A1	6/2008	Altman et al.
2007/0015532	A1	1/2007	Deelman	2008/0141153	A1	6/2008	Samson et al.
2007/0024646	A1	2/2007	Saarinen	2008/0153551	A1	6/2008	Baek et al.
2007/0035513	A1	2/2007	Sherrard et al.	2008/0155425	A1	6/2008	Murthy et al.
2007/0038567	A1	2/2007	Allaire et al.	2008/0162651	A1	7/2008	Madnani
2007/0050724	A1	3/2007	Lee et al.	2008/0163104	A1	7/2008	Haug
2007/0054679	A1	3/2007	Cho et al.	2008/0165132	A1	7/2008	Weiss
2007/0061488	A1	3/2007	Alagappan et al.	2008/0165136	A1	7/2008	Christie et al.
2007/0061714	A1	3/2007	Stuple et al.	2008/0165141	A1	7/2008	Christie
2007/0063995	A1	3/2007	Bailey et al.	2008/0165163	A1	7/2008	Bathiche
2007/0067272	A1	3/2007	Flynt	2008/0167058	A1	7/2008	Lee et al.
2007/0067737	A1	3/2007	Zielinski et al.	2008/0168349	A1	7/2008	Lamiroux et al.
2007/0073718	A1	3/2007	Ramer	2008/0168379	A1	7/2008	Forstall et al.
2007/0076013	A1	4/2007	Campbell	2008/0168382	A1	7/2008	Louch et al.
2007/0080954	A1	4/2007	Griffin	2008/0168402	A1	7/2008	Blumenberg
2007/0082707	A1	4/2007	Flynt et al.	2008/0168403	A1	7/2008	Westerman et al.
2007/0082708	A1	4/2007	Griffin	2008/0172609	A1	7/2008	Rytivaara
2007/0083821	A1	4/2007	Garbow et al.	2008/0174570	A1	7/2008	Jobs et al.
2007/0106635	A1	5/2007	Frieden et al.	2008/0180399	A1	7/2008	Cheng
2007/0120835	A1	5/2007	Sato	2008/0182628	A1	7/2008	Lee et al.
2007/0127638	A1	6/2007	Doulton	2008/0184112	A1	7/2008	Chiang et al.
2007/0157089	A1	7/2007	Van Os et al.	2008/0189653	A1	8/2008	Taylor et al.
2007/0171192	A1	7/2007	Seo et al.	2008/0189658	A1	8/2008	Jeong et al.
2007/0182595	A1	8/2007	Ghasabian	2008/0192056	A1	8/2008	Robertson et al.
2007/0182999	A1	8/2007	Anthony et al.	2008/0198141	A1	8/2008	Lee et al.
2007/0185847	A1	8/2007	Budzik et al.	2008/0200142	A1	8/2008	Abdel-Kader et al.
2007/0192707	A1	8/2007	Maeda et al.	2008/0208973	A1	8/2008	Hayashi
2007/0192730	A1	8/2007	Simila et al.	2008/0222273	A1	9/2008	Lakshmanan
2007/0192733	A1	8/2007	Horiuchi	2008/0222545	A1	9/2008	Lemay et al.
2007/0192739	A1	8/2007	Hunleth et al.	2008/0222547	A1	9/2008	Wong et al.
2007/0197196	A1	8/2007	Shenfield et al.	2008/0222560	A1	9/2008	Harrison
2007/0198420	A1	8/2007	Goldstein	2008/0222569	A1	9/2008	Champion
2007/0208840	A1	9/2007	Mcconville et al.	2008/0242362	A1	10/2008	Duarte
2007/0211034	A1	9/2007	Griffin et al.	2008/0259042	A1	10/2008	Thorn
2007/0214429	A1	9/2007	Lyudovyyk et al.	2008/0261513	A1	10/2008	Shin et al.
2007/0216651	A1	9/2007	Patel	2008/0261660	A1	10/2008	Huh et al.
2007/0216661	A1	9/2007	Chen et al.	2008/0263457	A1	10/2008	Kim et al.
2007/0225022	A1	9/2007	Satake	2008/0270558	A1	10/2008	Ma
2007/0233654	A1	10/2007	Karlson	2008/0297475	A1	12/2008	Woolf et al.
2007/0236468	A1	10/2007	Tuli	2008/0299999	A1	12/2008	Lockhart et al.
2007/0238488	A1	10/2007	Scott	2008/0301046	A1	12/2008	Martinez
2007/0247435	A1	10/2007	Benko et al.	2008/0301575	A1	12/2008	Fermon
2007/0250583	A1	10/2007	Hardy	2008/0307351	A1	12/2008	Louch et al.
2007/0253758	A1	11/2007	Suess	2008/0309626	A1	12/2008	Westerman et al.
2007/0256029	A1	11/2007	Maxwell	2008/0316177	A1	12/2008	Tseng
2007/0257891	A1	11/2007	Esenther et al.	2008/0317240	A1	12/2008	Chang et al.
2007/0257933	A1	11/2007	Klassen	2008/0320413	A1	12/2008	Oshiro
2007/0260674	A1	11/2007	Shenfield	2009/0007009	A1	1/2009	Luneau et al.
2007/0262964	A1	11/2007	Zotov et al.	2009/0007017	A1	1/2009	Anzures et al.
2007/0263843	A1	11/2007	Foxenland	2009/0012952	A1	1/2009	Fredriksson
2007/0273663	A1	11/2007	Park et al.	2009/0029736	A1	1/2009	Kim et al.
2007/0273668	A1	11/2007	Park et al.	2009/0031247	A1	1/2009	Walter et al.
2007/0280457	A1	12/2007	Aberethy	2009/0037469	A1	2/2009	Kirsch
2007/0281747	A1	12/2007	Pletikosa	2009/0037846	A1	2/2009	Spalink et al.
2008/0005668	A1	1/2008	Mavinkurve	2009/0051671	A1	2/2009	Konstas
2008/0028294	A1	1/2008	Sell et al.	2009/0061837	A1	3/2009	Chaudhri et al.
2008/0032681	A1	2/2008	West	2009/0061948	A1	3/2009	Lee et al.
2008/0036743	A1	2/2008	Westerman	2009/0064055	A1	3/2009	Chaudhri
2008/0040692	A1	2/2008	Sunday et al.	2009/0070673	A1	3/2009	Barkan et al.
2008/0048986	A1	2/2008	Khoo	2009/0077649	A1	3/2009	Lockhart
2008/0052370	A1	2/2008	Snyder	2009/0083656	A1	3/2009	Dukhon
2008/0057910	A1	3/2008	Thoresson et al.	2009/0085851	A1	4/2009	Lim
2008/0057926	A1	3/2008	Forstall et al.	2009/0085878	A1	4/2009	Heubel
2008/0072173	A1	3/2008	Brunner et al.	2009/0089215	A1	4/2009	Newton
2008/0076472	A1	3/2008	Hyatt	2009/0094562	A1	4/2009	Jeong et al.
2008/0082934	A1	4/2008	Kocienda et al.	2009/0103515	A1	4/2009	Pointer
2008/0085700	A1	4/2008	Arora	2009/0106696	A1	4/2009	Duarte
2008/0092054	A1	4/2008	Bhumkar et al.	2009/0109243	A1	4/2009	Kraft
2008/0095100	A1	4/2008	Cleveland et al.	2009/0117942	A1	5/2009	Boningue et al.
2008/0102863	A1	5/2008	Hardy	2009/0125844	A1	5/2009	Weir et al.
2008/0104544	A1	5/2008	Collins et al.	2009/0140061	A1	6/2009	Schultz et al.
2008/0107057	A1	5/2008	Kannan et al.	2009/0140986	A1	6/2009	Karkkainen et al.
2008/0113656	A1	5/2008	Lee et al.	2009/0144642	A1	6/2009	Crystal
				2009/0144653	A1	6/2009	Ubillos
				2009/0146962	A1	6/2009	Ahonen et al.
				2009/0153492	A1	6/2009	Popp
				2009/0160809	A1	6/2009	Yang

(56)

References Cited

U.S. PATENT DOCUMENTS

2009/0163182	A1	6/2009	Gatti et al.	2010/0169766	A1	7/2010	Duarte et al.
2009/0164888	A1	6/2009	Phan	2010/0169772	A1	7/2010	Stallings et al.
2009/0164928	A1	6/2009	Brown et al.	2010/0175018	A1	7/2010	Petschnigg et al.
2009/0164936	A1	6/2009	Kawaguchi	2010/0175029	A1	7/2010	Williams
2009/0178007	A1	7/2009	Matas et al.	2010/0180233	A1	7/2010	Kruzeniski
2009/0182788	A1	7/2009	Chung et al.	2010/0185932	A1	7/2010	Coffman et al.
2009/0184939	A1	7/2009	Wohlstadter et al.	2010/0216491	A1	8/2010	Winkler et al.
2009/0199122	A1	8/2009	Deutsch et al.	2010/0248688	A1	9/2010	Teng
2009/0199128	A1	8/2009	Matthews et al.	2010/0248689	A1	9/2010	Teng
2009/0199130	A1	8/2009	Tsern et al.	2010/0248741	A1	9/2010	Setlur et al.
2009/0205041	A1	8/2009	Michalske	2010/0248787	A1	9/2010	Smuga
2009/0215504	A1	8/2009	Lando	2010/0251153	A1	9/2010	SanGiovanni et al.
2009/0228825	A1	9/2009	Van Os et al.	2010/0265196	A1	10/2010	Lee et al.
2009/0228841	A1	9/2009	Hildreth	2010/0281402	A1	11/2010	Staikos et al.
2009/0235200	A1	9/2009	Deutsch et al.	2010/0281409	A1	11/2010	Rainisto et al.
2009/0235203	A1	9/2009	Iizuka	2010/0283743	A1	11/2010	Coddington et al.
2009/0249257	A1	10/2009	Bove et al.	2010/0289806	A1	11/2010	Lao et al.
2009/0265662	A1	10/2009	Bamford	2010/0293056	A1	11/2010	Flynt et al.
2009/0271778	A1	10/2009	Mandyam et al.	2010/0295795	A1	11/2010	Wilairat
2009/0284482	A1	11/2009	Chin	2010/0298034	A1	11/2010	Shin et al.
2009/0288044	A1	11/2009	Matthews et al.	2010/0302172	A1	12/2010	Wilairat
2009/0292989	A1	11/2009	Matthews et al.	2010/0302176	A1	12/2010	Nikula et al.
2009/0293007	A1	11/2009	Duarte et al.	2010/0302278	A1	12/2010	Shaffer et al.
2009/0298547	A1	12/2009	Kim et al.	2010/0311470	A1	12/2010	Seo et al.
2009/0303231	A1	12/2009	Robinet et al.	2010/0313165	A1	12/2010	Louch et al.
2009/0305732	A1	12/2009	Marcellino et al.	2010/0321403	A1	12/2010	Inadome
2009/0307105	A1	12/2009	Lemay et al.	2010/0328431	A1	12/2010	Kim et al.
2009/0307589	A1	12/2009	Inose et al.	2010/0333008	A1	12/2010	Taylor
2009/0307623	A1	12/2009	Agarawala et al.	2011/0004839	A1	1/2011	Cha et al.
2009/0313584	A1	12/2009	Kerr et al.	2011/0004845	A1	1/2011	Ciabarra
2009/0315839	A1	12/2009	Wilson et al.	2011/0018806	A1	1/2011	Yano
2009/0315847	A1	12/2009	Fujii	2011/0029598	A1	2/2011	Arnold et al.
2009/0322760	A1	12/2009	Kwiatkowski et al.	2011/0029904	A1	2/2011	Smith et al.
2010/0008490	A1	1/2010	Gharachorloo et al.	2011/0029934	A1	2/2011	Locker et al.
2010/0013782	A1	1/2010	Liu et al.	2011/0043527	A1	2/2011	Ording et al.
2010/0020025	A1	1/2010	Lemort et al.	2011/0055773	A1	3/2011	Agarawala et al.
2010/0020091	A1	1/2010	Rasmussen et al.	2011/0074699	A1	3/2011	Marr et al.
2010/0031186	A1	2/2010	Tseng	2011/0074710	A1	3/2011	Weeldreyer et al.
2010/0042911	A1	2/2010	Wormald et al.	2011/0074719	A1	3/2011	Yeh et al.
2010/0050076	A1	2/2010	Roth	2011/0087988	A1	4/2011	Ray et al.
2010/0058248	A1	3/2010	Park	2011/0093778	A1	4/2011	Kim et al.
2010/0066698	A1	3/2010	Seo	2011/0093816	A1	4/2011	Chang et al.
2010/0070931	A1	3/2010	Nichols	2011/0093821	A1	4/2011	Wigdor et al.
2010/0073380	A1	3/2010	Kaplan et al.	2011/0107272	A1	5/2011	Aguilar
2010/0075628	A1	3/2010	Ye	2011/0113337	A1*	5/2011	Liu et al. 715/727
2010/0077058	A1	3/2010	Messer	2011/0113486	A1	5/2011	Hunt et al.
2010/0077310	A1	3/2010	Karachale et al.	2011/0119586	A1	5/2011	Blinnikka et al.
2010/0077330	A1	3/2010	Kaplan et al.	2011/0126156	A1	5/2011	Krishnaraj et al.
2010/0079413	A1	4/2010	Kawashima et al.	2011/0154235	A1	6/2011	Min et al.
2010/0081475	A1	4/2010	Chiang et al.	2011/0157027	A1	6/2011	Rissa
2010/0087169	A1	4/2010	Lin	2011/0161845	A1	6/2011	Stallings et al.
2010/0087173	A1	4/2010	Lin	2011/0163968	A1*	7/2011	Hogan 345/173
2010/0088635	A1	4/2010	Louch	2011/0173556	A1	7/2011	Czerwinski et al.
2010/0100839	A1	4/2010	Tseng et al.	2011/0173568	A1	7/2011	Royal, Jr. et al.
2010/0103118	A1	4/2010	Townsend et al.	2011/0175930	A1	7/2011	Hwang et al.
2010/0103124	A1	4/2010	Kruzeniski	2011/0202866	A1	8/2011	Huang et al.
2010/0105370	A1	4/2010	Kruzeniski	2011/0225547	A1	9/2011	Fong et al.
2010/0105424	A1	4/2010	Smuga	2011/0231796	A1	9/2011	Vigil
2010/0105438	A1	4/2010	Wykes	2011/0252346	A1	10/2011	Chaudhri
2010/0105439	A1	4/2010	Friedman	2011/0252380	A1	10/2011	Chaudhri
2010/0105440	A1	4/2010	Kruzeniski	2011/0316884	A1	12/2011	Giambalvo et al.
2010/0105441	A1	4/2010	Voss	2012/0005584	A1	1/2012	Seago et al.
2010/0106915	A1	4/2010	Krishnaprasad et al.	2012/0009903	A1	1/2012	Schultz et al.
2010/0107067	A1	4/2010	Vaisanen	2012/0028687	A1	2/2012	Wykes
2010/0107068	A1	4/2010	Butcher	2012/0050185	A1	3/2012	Davydov et al.
2010/0107100	A1	4/2010	Schneekloth	2012/0050332	A1	3/2012	Nikara et al.
2010/0122110	A1	5/2010	Ordogh	2012/0102433	A1	4/2012	Falkenburg
2010/0138767	A1	6/2010	Wang et al.	2012/0151397	A1	6/2012	Oberstein et al.
2010/0145675	A1	6/2010	Lloyd et al.	2012/0159395	A1	6/2012	Deutsch et al.
2010/0146437	A1	6/2010	Woodcock et al.	2012/0159402	A1	6/2012	Nurmi et al.
2010/0159966	A1	6/2010	Friedman	2012/0162266	A1	6/2012	Douglas et al.
2010/0159994	A1	6/2010	Stallings et al.	2012/0167008	A1	6/2012	Zaman
2010/0159995	A1	6/2010	Stallings et al.	2012/0174005	A1	7/2012	Deutsch
2010/0162180	A1	6/2010	Dunnam et al.	2012/0174029	A1	7/2012	Bastide et al.
2010/0167699	A1	7/2010	Sigmund et al.	2012/0179992	A1	7/2012	Smuga
				2012/0210265	A1	8/2012	Delia et al.
				2012/0212495	A1	8/2012	Butcher
				2012/0216139	A1	8/2012	Ording et al.
				2012/0233571	A1	9/2012	Wever et al.

(56)

References Cited

U.S. PATENT DOCUMENTS

2012/0244841 A1 9/2012 Teng
 2012/0254780 A1 10/2012 Mouton
 2012/0265644 A1 10/2012 Roa et al.
 2012/0290962 A1 11/2012 Zielinski et al.
 2012/0299968 A1 11/2012 Wong et al.
 2012/0304068 A1 11/2012 Zaman et al.
 2012/0304092 A1 11/2012 Jarrett et al.
 2012/0304108 A1 11/2012 Jarrett et al.
 2012/0304113 A1 11/2012 Patten et al.
 2012/0304114 A1 11/2012 Wong et al.
 2012/0304116 A1 11/2012 Donahue et al.
 2012/0304117 A1 11/2012 Donahue et al.
 2012/0304118 A1 11/2012 Donahue et al.
 2012/0311485 A1 12/2012 Caliendo, Jr. et al.
 2012/0323992 A1 12/2012 Brobst et al.
 2013/0033525 A1 2/2013 Markiewicz
 2013/0042203 A1 2/2013 Wong et al.
 2013/0042206 A1 2/2013 Zaman et al.
 2013/0044141 A1 2/2013 Markiewicz
 2013/0047079 A1 2/2013 Kroeger et al.
 2013/0047105 A1 2/2013 Jarrett
 2013/0047117 A1 2/2013 Deutsch
 2013/0057587 A1 3/2013 Leonard et al.
 2013/0057588 A1 3/2013 Leonard
 2013/0063442 A1 3/2013 Zaman
 2013/0063443 A1 3/2013 Garside
 2013/0063465 A1 3/2013 Zaman
 2013/0063490 A1 3/2013 Zaman
 2013/0067381 A1 3/2013 Yalovsky
 2013/0067390 A1 3/2013 Kwiatkowski
 2013/0067391 A1 3/2013 Pittappilly
 2013/0067398 A1 3/2013 Pittappilly
 2013/0067399 A1 3/2013 Elliott
 2013/0067412 A1 3/2013 Leonard
 2013/0067420 A1 3/2013 Pittappilly
 2013/0093757 A1 4/2013 Cornell

FOREIGN PATENT DOCUMENTS

JP 2004227393 8/2004
 JP 2004357257 12/2004
 KR 200303655 2/2003
 KR 20060019198 3/2006
 KR 1020070036114 4/2007
 KR 1020070098337 10/2007
 KR 20070120368 12/2007
 KR 1020080025951 3/2008
 KR 1020080041809 5/2008
 KR 1020080076390 8/2008
 KR 100854333 9/2008
 KR 1020080084156 9/2008
 KR 1020080113913 12/2008
 KR 1020090041635 4/2009
 KR 20100010072 2/2010
 KR 20100048375 5/2010
 KR 20100056369 5/2010
 KR 1020100056369 5/2010
 TW 201023026 6/2010
 WO WO-9926127 5/1999
 WO WO-2005026931 3/2005
 WO WO-2005027506 3/2005
 WO WO-2006019639 2/2006
 WO WO-2007121557 11/2007
 WO WO-2007134623 11/2007
 WO WO-2008030608 3/2008
 WO WO-2008031871 3/2008
 WO WO-2008035831 3/2008
 WO WO-2009000043 12/2008
 WO WO-2009049331 4/2009
 WO WO-2010048229 4/2010
 WO WO-2010048448 4/2010
 WO WO-2010048519 4/2010

WO WO-2010117643 10/2010
 WO WO-2010135155 11/2010
 WO WO-2011041885 4/2011

OTHER PUBLICATIONS

“Email Notification for Microsoft Outlook and Outlook Express”, Retrieved at << <http://www.contextmagic.com/express-notification/> >>, Retrieved Date: Sep. 29, 2010, pp. 3.
 Long, Todd, “Gmail Manager 0.6”, Retrieved at << <https://addons.mozilla.org/en-US/firefox/addon/1320/> >>, Jan. 27, 2010, pp. 4.
 Ritchie, Rene, “iOS 4 features: iPod touch Wi-Fi stays connected when asleep—iPhone too?”, Retrieved at << <http://www.goip.com/2010/06/ios-4-features-ipod-touch-wi-fi-stays-connected-when-asleep-%E2%80%94iphone-too/> >>, Jun. 14, 2010, pp. 2.
 “Push Notifications Overview for Windows Phone”, Retrieved at << <http://msdn.microsoft.com/en-us/library/ff402558%28VS.92%29.aspx> >>, Sep. 3, 2010, pp. 1.
 “PCT Search Report and Written Opinion”, Application No. PCT/US2011/055511, (Apr. 24, 2012), 9 pages.
 “PCT Search Report and Written Opinion”, Application No. PCT/US2011/055521, (May 15, 2012), 9 pages.
 “PCT Search Report and Written Opinion”, Application No. PCT/US2011/055522, (May 15, 2012), 9 pages.
 “PCT Search Report and Written Opinion”, Application No. PCT/US2011/055520, (May 9, 2012), 8 pages.
 “International Search Report”, Mailed Date: Sep. 17, 2012, Application No. PCT/US2011/067073, Filed Date: Dec. 23, 2011, pp. 8.
 “Adobe Acrobat 8 Standard User Guide”, Adobe Systems Incorporated, (2007), pp. 34 & 36.
 “Advisory Action”, U.S. Appl. No. 12/414,382, (Jan. 20, 2012), 3 pages.
 “Advisory Action”, U.S. Appl. No. 12/433,605, (Apr. 5, 2012), 3 pages.
 “Alltel Adds Dedicated Search Key to Phones”, Retrieved from: <<http://www.phonescoop.com/news/item.php?n=2159>> on Nov. 26, 2008., (Apr. 12, 2007), 2 Pages.
 “Android 2.3 User’s Guide”, AUG-2.3-103, Android mobile technology platform 2.3, (Dec. 13, 2010), 380 pages.
 “Apple iPhone - 8GB AT&T”, Retrieved from: <http://nytimes.com/smartphones/apple-iphone-8gb-at/4515-6452_7-32309245.html> on Nov. 20, 2008, (Jun. 29, 2007), 11 pages.
 “Ask Web Hosting”, Retrieved from: <http://www.askwebhosting.com/story/18501/HTC_FUZE_From_ATandampT_Fuses_Fun_and_Function_With_the_One-Touch_Power_of_TouchFLO_3D.html> on May 5, 2009., (Nov. 11, 2008), 3 pages.
 “Basics of Your Device: Get Familiar with the Home Screen”, *Nokia USA—How to*, retrieved from <<http://www.nokia.ca/get-support-and-software/product-support/c6-01/how-to#>> on May 11, 2011, 3 pages.
 “Blackberry office tools: Qwerty Convert”, Retrieved from: <http://blackberrysoftwarelist.net/blackberry/download-software/blackberry-office/qwerty_convert.aspx> on Nov. 20, 2008, 1 page.
 “Calc4M”, Retrieved from: <<http://www.hellebo.com/Calc4M.html>> on Dec. 11, 2008, (Sep. 10, 2008), 4 Pages.
 “Content-Centric E-Mail Message Analysis in Litigation Document Reviews”, Retrieved from: <<http://www.busmanagement.com/article/Issue-14/Data-Management/Content-Centric-E-Mail-Message-Analysis-in-Litigation-Document-Reviews/>> on May 6, 2009, (2009), 5 Pages.
 “Dial a number”, Retrieved from: <<http://www.phonespell.org/ialhelp.html>> on Nov. 20, 2008), 1 page.
 “DuoSense™ Multi-Touch Gestures”, Retrieved from: <http://www.n-trig.com/Data/Uploads/Misc/DuoSenseMTG_final.pdf>, (Jul. 2008), 4 pages.
 “Elecont Quick Desktop 1.0.43”, Retrieved from: <<http://handheld.softpedia.com/get/System-Utilities/Launcher-Applications/Elecont-Quick-Desktop-72131.shtml>> on May 5, 2009., (Mar. 13, 2009), 2 pages.
 “Exclusive: Windows Mobile 7 to Focus on Touch and Motion Gestures”, Retrieved from: <<http://anti-linux.blogspot.com/2008/08/exclusive-windows-mobile-7-to-focus-on.html>> on May 6, 2009, (Aug. 1, 2008), 14 pages.

(56)

References Cited

OTHER PUBLICATIONS

“Extended European Search Report”, European Patent Application No. 09818253.8, (Apr. 10, 2012), 7 pages.

“Final Office Action”, U.S. Appl. No. 12/244,545, (Dec. 7, 2011), 16 pages.

“Final Office Action”, U.S. Appl. No. 12/244,545, (Sep. 7, 2012), 23 pages.

“Final Office Action”, U.S. Appl. No. 12/413,977, (Nov. 17, 2011), 16 pages.

“Final Office Action”, U.S. Appl. No. 12/414,382, (Dec. 23, 2011), 7 pages.

“Final Office Action”, U.S. Appl. No. 12/414,476, (Dec. 1, 2011), 20 pages.

“Final Office Action”, U.S. Appl. No. 12/433,605, (Feb. 3, 2012), 11 pages.

“Final Office Action”, U.S. Appl. No. 12/433,667, (Sep. 13, 2011), 17 pages.

“Final Office Action”, U.S. Appl. No. 12/469,458, (Nov. 17, 2011), 15 pages.

“Final Office Action”, U.S. Appl. No. 12/469,480, (Feb. 9, 2012), 17 pages.

“Final Office Action”, U.S. Appl. No. 12/484,799, (Apr. 30, 2012), 13 pages.

“Final Office Action”, U.S. Appl. No. 12/560,081, (Mar. 14, 2012), 16 pages.

“Freeware.mobi”, Retrieved from: <<http://www.palmtree.com/download-palette.html>> on Nov. 6, 2008, (Oct. 9, 2001), 2 pages.

“How do you dial 1-800-FLOWERS”, Retrieved from: <<http://blods.msdn.com/windowsmobile/archive/2007/02/06/how-do-you-dial-1-800-flowers.aspx>> on Nov. 20, 2008, (Feb. 6, 2007), 24 pages.

“HTC Shows HTC Snap with Snappy Email Feature”, Retrieved from: <<http://www.wirelessandmobilenews.com/smartphones/> on May 5, 2009>, 10 pages.

“IntelliScreen-New iPhone App Shows Today Screen Type Info in Lock Screen”, Retrieved from: <<http://justanotheriphoneblog.com/wordpress/2008/05/13/intelliscreen-new-iphone-app-shows-today-screen-type-info-on-lock-screen/>> on Nov. 12, 2008, (May 13, 2008), 11 pages.

“International Search Report and Written Opinion”, International Application No. PCT/US2011/055514, (May 22, 2012), 8 pages.

“International Search Report”, Application No. PCT/US2010/028553, Application Filing Date: Mar. 24, 2010, (Nov. 9, 2010), 9 pages.

“Internet Explorer Window Restrictions”, Retrieved from: [http://technet.microsoft.com/en-us/library/cc759517\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc759517(WS.10).aspx) on Jun. 28, 2011, Microsoft TechNet, 5 pages.

“Introduction to Windows Touch”, Retrieved from: <http://download.microsoft.com/download/a/d/f/adf1347d-08dc-41a4-9084-623b1194d4b2/Win7_touch.docx> (Dec. 18, 2008), pp. 1-7.

“iPod touch User Guide for iPhone OS 3.0 Software”, Apple Inc., (2009), 153 pages.

“Keyboard (5)”, Retrieved from: <<http://landru.uwaterloo.ca/cgi-bin/man.cgi?section=5&topic=keyboard>> on Dec. 11, 2008., (Aug. 11, 1997), 8 Pages.

“Keyboard Shortcuts”, Retrieved from: <<http://www.pctoday.com/editorial/article.asp?article=articles%2F2005%2F0311%2F26t11%2F26t11.asp>> on Aug. 3, 2009., (Nov. 2005), 5 pages.

“Kiosk Browser Chrome Customization Firefox 2.x”, Retrieved from: <<http://stlouis-shopper.com/cgi-bin/mozdev-wiki/pl?ChromeCustomization>> on Oct. 22, 2008 *Making a new chrome for the kiosk browser*, Kiosk Project Kiosk Browser Chrome Customization Firefox-2.x, (Aug. 16, 2007), 2 pages.

“Live Photo Gallery—Getting Started—from Camera to Panorama”, Retrieved from: <<http://webdotwiz.spaces.live.com/blog/cns!2782760752B93233!1729.entry>> on May 5, 2009., (Sep. 2008), 7 Pages.

“MIDTB Tip Sheet: Book Courier”, Retrieved from: <<http://www.midtb.org/tipsbookcourier.htm>> Dec. 11, 2008., (Sep. 26, 2005), 6 Pages.

“Mobile/UI/Designs/TouchScreen”, Retrieved from: <https://wiki.mozilla.org/Mobile/UI/Designs/TouchScreen> on May 6, 2009., (Feb. 3, 2009), 15 Pages.

“Multi-touch”, Retrieved from <http://en.wikipedia.org/wiki/Multi-touch#Microsoft_Surface> on Apr. 24, 2009, (Apr. 17, 2009), 8 pages.

“Nokia E61 Tips and Tricks for Keyboard Shortcuts”, Retrieved from: <<http://www.mobiletopsoft.com/board/1810/nokia-e61-tips-and-tricks-for-keyboard-shortcuts.html>> on Dec. 17, 2008., (Jan. 27, 2006), 2 Pages.

“Non-Final Office Action”, U.S. Appl. No. 11/215,052, (Jun. 23, 2011), 17 pages.

“Non-Final Office Action”, U.S. Appl. No. 11/502,264, (Sep. 14, 2012), 14 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/244,545, (Mar. 27, 2012), 18 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/244,545, (Aug. 17, 2011), 15 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/413,977, (Jul. 19, 2011), 17 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/413,977, (Jul. 20, 2012), 18 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/414,382, (Jul. 26, 2011), 9 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/414,434, (Jan. 17, 2012), 7 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/414,434, (May 31, 2012), 7 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/414,434, (Aug. 2, 2011), 6 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/414,455, (Aug. 29, 2011), 8 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/414,458, (Jul. 6, 2011), 8 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/414,476, (Nov. 9, 2012), 22 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/414,476, (Aug. 3, 2011), 21 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/433,605, (Jun. 24, 2011), 10 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/433,667, (Jun. 7, 2011), 15 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/433,667, (Feb. 3, 2012), 16 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/469,419, (Nov. 9, 2011), 15 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/469,419, (May 23, 2012), 13 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/469,458, (Jul. 1, 2011), 15 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/469,458, (Sep. 21, 2012), 14 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/469,480, (Oct. 17, 2012), 16 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/469,480, (Sep. 22, 2011), 14 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/470,558, (Nov. 22, 2011), 9 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/480,969, (Aug. 7, 2012), 15 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/484,799, (Aug. 11, 2011), 12 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/484,799, (Aug. 7, 2012), 13 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/484,845, (Dec. 7, 2011), 16 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/560,081, (Dec. 7, 2011), 16 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/983,106, (Nov. 9, 2012), 17 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/492,495, (Sep. 17, 2012), 8 pages.

(56)

References Cited

OTHER PUBLICATIONS

“Notice of Allowance”, U.S. Appl. No. 11/215,052, (Mar. 14, 2012), 5 pages.

“Notice of Allowance”, U.S. Appl. No. 12/414,382, (Apr. 4, 2012), 4 pages.

“Notice of Allowance”, U.S. Appl. No. 12/414,434, (Aug. 17, 2012), 4 pages.

“Notice of Allowance”, U.S. Appl. No. 12/414,455, (Jan. 4, 2012), 4 pages.

“Notice of Allowance”, U.S. Appl. No. 12/414,458, (Oct. 31, 2011), 2 pages.

“Notice of Allowance”, U.S. Appl. No. 12/414,458, (Nov. 29, 2011), 2 pages.

“Notice of Allowance”, U.S. Appl. No. 12/414,458, (Aug. 10, 2011), 6 pages.

“Notice of Allowance”, U.S. Appl. No. 12/470,558, (Apr. 2, 2012), 7 pages.

“Notice of Allowance”, U.S. Appl. No. 12/470,558, (Aug. 23, 2012), 2 pages.

“Notice of Allowance”, U.S. Appl. No. 12/484,799, (Oct. 22, 2012), 10 pages.

“Notice of Allowance”, U.S. Appl. No. 12/484,845, (Mar. 16, 2012), 5 pages.

“Oracle8i Application Developers Guide—Advanced Queuing Release 2 (8.1.6)”, Retrieved from: <http://www.cs.otago.ac.nz/oradocs/appdev.817/a76938/adq01in5.htm> on May 6, 2009., (Dec. 1999), 8 pages.

“Oracle8i Application Developers Guide—Advanced Queuing”, Retrieved from: http://www.cs.umbc.edu/help/oracle8/server.815/a68005/03_adq1i.htm on May 6, 2009., (Feb. 1999), 29 Pages.

“Oracle8i Concepts Release 8.1.5”, Retrieved from: <http://www.cs.umbc.edu/help/oracle8/server.815/a67781/c16queue.htm> on May 6, 2009., (Feb. 1999), 10 Pages.

“Palette Extender 1.0.2”, Retrieved from: <http://palette-extender.en.softonic.com/symbian> on Nov. 6, 2008, (Jan. 21, 2003), 2 pages.

“Parallax Scrolling”, Retrieved from: http://en.wikipedia.org/wiki/Parallax_scrolling on May 5, 2009., (May 4, 2009), 3 Pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2009/061382, (May 26, 2010), 10 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2009/061735, (Jun. 7, 2010), 11 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2010/028699, (Oct. 4, 2010), 10 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2010/028555, (Oct. 12, 2010), 10 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2010/034772, (Dec. 29, 2010), 12 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/055523, (May 10, 2012), 9 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/055513, (Mar. 27, 2012) 8 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/055512, (May 24, 2012), 8 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/055524, (Jun. 1, 2012), 8 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/065702, (Aug. 29, 2012), 8 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/055712, (Sep. 21, 2012), 9 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/055736, (Sep. 17, 2012), 8 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/055496, (Sep. 12, 2012), 9 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/055746, (Sep. 27, 2012), 9 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/055725, (Sep. 27, 2012), 10 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/055478, (Sep. 27, 2012), 9 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/055493, (Sep. 26, 212), 9 pages.

“PCT Search Report and Written Opinion”, PCT Application No. PCT/US2010/038730, (Jan. 19, 2011), 8 pages.

“PCT Search Report”, Application Serial No. PCT/US2009/061864, (May 14, 2010), 10 pages.

“Remapping the Keyboard”, Retrieved from: <http://publib.boulder.ibm.com/infocenter/hodhelp/v9r0/index.jsp?topic=/com.ibm.hod9.doc/help/assignkey.html> on Dec. 11, 2008., (Jul. 15, 2005), 5 Pages.

“SecureMe-Anti-Theft Security Application for S60 3rd”, Retrieved from: <http://www.killermobile.com/newsite/mobile-software/s60-applications/secureme-%11-anti%11theft-security-application-for-s60-3rd.htm> on Jun. 28, 2011, (Dec. 15, 2008), 3 pages.

“Snap”, *Windows 7 Features*, retrieved from <http://windows.microsoft.com/en-US/windows7/products/features/snap> on Sep. 23, 2011, 2 pages.

“Symbian Applications”, Retrieved from: http://symbianfullversion.blogspot.com/2008_12_01_archive.html on May 5, 2009., (Jan. 2009), 51 Pages.

“Top 3 Task Switchers for Android”, *TechCredo*, retrieved from <http://www.techcredo.com/android/top-3-task-switchers-for-android> May 11, 2011, (Mar. 9, 2011), 5 pages.

“Top Android App: Swipepad”, *Best Android Apps Review*, retrieved from <http://www.bestandroidappsreview.com/2011/01/top-android-app-swipepad-launcher.html> on May 11, 2011, 4 pages.

“Touch Shell Free”, Retrieved from: <http://www.pocketpcfreeware.mobi/download-touch-shell-free.html> on May 5, 2009., (Feb. 23, 2009), 2 Pages.

“Windows Phone 7 (Push Notification)”, retrieved from <http://unknownerror.net/2011-06/windows-phone-7-push-notification-36520> on Jul. 6, 2011, 4 pages.

“Winterface Review”, Retrieved from: <http://www.mytodayscreen.com/winterface-review/> on Nov. 12, 2008, (Jul. 9, 2008), 42 pages.

“Womma”, Retrieved from: <http://www.womma.org/blog/links/wom-trends/> on May 5, 2009., (2007), 70 Pages.

“Working with Multiple Windows”, *Msoffice tutorial!*, retrieved from <http://www.msoffice-tutorial.com/working-with-multiple-windows.php> on Sep. 23, 2011, 3 pages.

Beiber, Gerald et al., “Screen Coverage: A Pen-Interaction Problem for PDA’s and Touch Screen Computers”, In Proceedings of ICWMC 2007, (Mar. 2007), 6 pages.

Damien, “7 Ways to Supercharge Multitasking in Android”, retrieved from <http://maketecheasier.com/7-ways-to-supercharge-multitasking-in-android/2011/01/22/> on May 11, 2011, (Jan. 22, 2011), 5 pages.

Dolcourt, Jessica “Webware”, Retrieved from: <http://news.cnet.com/webware/?category=2010> on May 5, 2009., 13 Pages.

Gade, Lisa “Samsung Alias u740”, Retrieved from: <http://www.mobiletechreview.com/phones/Samsung-U740.htm> on Nov. 20, 2008, (Mar. 14, 2007), 6 pages.

Gao, Rui “A General Logging Service for Symbian based Mobile Phones”, Retrieved from: http://www.nada.kth.se/utbildning/grukth/exjobb/rapportlistor/2007/rapporter07/gao_rui_07132.pdf on Jul. 17, 2008, (Feb. 2007), pp. 1-42.

Ha, Rick et al., “SIMKEYS: An Efficient Keypad Configuration for Mobile Communications”, Retrieved from: <http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=01362557> on Dec. 17, 2008, (Nov. 2004), 7 Pages.

Harrison, Richard “Symbian OS C++ for Mobile Phones Volume 3”, Retrieved from: <http://www.amazon.co.uk/Symbian-OS-Mobile-Phones-Press/dp/productdescription/0470066415> on Oct. 23, 2008, Symbian Press, (Jun. 16, 2003), 4 pages.

Hickey, Andrew R., “Google Android has Landed; T-Mobile, HTC Unveil G1”, Retrieved from: <http://www.crn.com/retail/210603348> on Nov. 26, 2008., (Sep. 23, 2008), 4 pages.

Kcholi, Avi “Windows CE .NET Interprocess Communication”, Retrieved from <http://msdn.microsoft.com/en-us/library/ms836784.aspx> on Jul. 17, 2008., (Jan. 2004), 15 Pages.

La, Nick “Parallax Gallery”, Available at <http://webdesignerwall.com/tutorials/parallax-gallery/comment-page-1>, (Apr. 25, 2008), 16 pages.

Mann, Richard et al., “Spectrum Analysis of Motion Parallax in a 3D Cluttered Scene and Application to Egomotion”, *Journal of the Opti-*

(56)

References Cited

OTHER PUBLICATIONS

cal Society of America A, vol. 22, No. 9, Available at <<http://www.cs.uwaterloo.ca/~mannr/snow/josa-mann-langer.pdf>>, (Sep. 2005), pp. 1717-1731.

Mantia, Louie “Multitasking: What Does It Mean?”, retrieved from <<http://mantia.me/blog/multitasking/>> on Sep. 23, 2011, 3 pages.

Mao, Jeng “Comments of Verizon Wireless Messaging Services, LLC”, Retrieved from: <http://www.ntia.doc.gov/osmhome/warnings/comments/verizon.htm> on May 6, 2009., (Aug. 18, 2000), 5 Pages.

Marie, Angelina “MacBook Trackpad Four Fingers Swipe Left/Right to Switch Applications”, *MacBook Junkie*, retrieved from <<http://www.macbookjunkie.com/macbook-trackpad-four-fingers-swipe-left-right-to-switch-applications/>> on May 11, 2011, (Nov. 13, 2010), 4 pages.

Mei Tao et al., “Probabilistic Multimodality Fusion for Event Based Home Photo Clustering”, Retrieved from: <<http://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=04036960>>, (Dec. 26, 2006), pp. 1757-1760.

Nordgren, Peder “Development of a Touch Screen Interface for Scania Interactor”, *Master’s Thesis in Computing Science, UMEA University*, Available at <<http://www.cs.umu.se/education/examina/Rapporter/PederNordgren.pdf>>, (Apr. 10, 2007), pp. 1-59.

Oliver, Sam “Potential iPhone Usability and Interface Improvements”, Retrieved from: <http://www.appleinsider.com/articles/08/09/18/potential_iphone_usability_and_interface_improvements.html> on Nov. 12, 2008, AppleInsider, (Sep. 18, 2008), 4 pages.

Oryl, Michael “Review: Asus P527 Smartphone for North America”, Retrieved from: <<http://www.mobileburn.com/review.jsp?Id=4257>> on Dec. 17, 2008., (Mar. 5, 2008), 1 Page.

Padilla, Alfredo “Palm Treo 750 Cell Phone Review—Hardware”, Retrieved from: <<http://www.wirelessinfo.com/content/palm-Treo-750-Cell-Phone-Review/Hardware.htm>> on Dec. 11, 2008., (Mar. 17, 2007), 4 Pages.

Raghaven, Gopal et al., “Model Based Estimation and Verification of Mobile Device Performance”, Available at http://alumni.cs.ucsb.edu/~raimisl/emsoft04_12.pdf, (Sep. 27-29, 2004), 10 Pages.

Reed, Brad “Microsoft Demos Windows Mobile 6.1 at CTIA”, Retrieved from: <<http://www.networkworld.com/news/2008/040208-ctia-microsoft-windows-mobile.html>> on Jul. 18, 2008, (Apr. 2, 2008), 1 page.

Remond, Mickael “Mobile Marketing Solutions”, Retrieved from: <http://www.mobilemarketingmaqazine.co.uk/mobile_social_networking/> on May 5, 2009., (Apr. 28, 2009), 16 Pages.

Rice, Stephen V., et al., “A System for Searching Sound Palettes”, *Proceedings of the Eleventh Biennial Symposium on Arts and Technology*, Available at <<http://www.comparisonics.com/FindSoundsPalettePaper.pdf>>, (Feb. 2008), 6 pages.

Roberts, Neil “Touching and Gesturing on the iPhone”, Available at <<http://www.sitepen.com/blog/2008/07/10/touching-and-gesturing-on-the-iphone/comments-pare-1>>, (Jul. 10, 2008), 16 pages.

Singh, Kundan et al., “CINEMA: Columbia InterNet Extensible Multimedia Architecture”, Available at <<http://www1.cs.columbia.edu/~library/TR-repository/reports/reports-2002/cucs-011-02.pdf>>, (Sep. 3, 2002), 83 Pages.

Steinicke, Frank et al., “Multi-Touching 3D Data: Towards Direct Interaction in Stereoscopic Display Environments coupled with Mobile Devices”, *Advanced Visual Interfaces (AvI) Workshop on Designing Multi-Touch Interaction Techniques for Coupled Public*, Available at <<http://viscg.uni-muenster.de/publications/2008/SHSK08/ppd-workshop-.pdf>>, (Jun. 15, 2008), 4 Pages.

Suror, “PocketShield—New Screenlock App for the HTC Diamond and Pro”, Retrieved from: <<http://wmpoweruser.com/?tag=htc-touch-diamond>> on Jun. 28, 2011, (Oct. 23, 2008), 2 pages.

Terpstra, Brett “Beta Beat: Grape, a New Way to Manage Your Desktop Clutter”, Retrieved from: *Beta Beat: Grape, a New Way to Manage Your Desktop Clutter* on Jun. 28, 2011, (Apr. 14, 2009), 4 pages.

Vallerio, Keith S., et al., “Energy-Efficient Graphical User Interface Design”, Retrieved from: <http://www.cc.gatech.edu/classes/AY2007/cs7470_fall/zhong-energy-efficient-user-interface.pdf>, (Jun. 10, 2004), pp. 1-13.

Vermeulen, Jan “BlackBerry PlayBook Hands-on”, retrieved from <<http://mybroadband.co.za/news/gadgets/20104-BlackBerry-PlayBook-hands-.html>> on May 11, 2011, (May 8, 2011), 4 pages.

Vitici, Federico “Growl 1.3 to Be Released on Mac App Store, Introduce Lion Support and Drop GrowlMail Support”, Retrieved from: <<http://www.macstories.net/stories/growl-1-3-to-be-released-on-mac-app-store-introduce-lion-support-and-drop-growlmail-support/>> on Jul. 22, 2011, (Jul. 6, 2011), 6 pages.

Wilson, Tracy V., “How the iPhone Works”, Retrieved from: <<http://electronics.howstuffworks.com/iphone2.htm>> on Apr. 24, 2009, (Jan. 2007), 9 pages.

Wobbrock, Jacob O., et al., “User-Defined Gestures for Surface Computing”, *CHI 2009*, Apr. 4-9, 2009, Boston, MA, available at <<http://faculty.washington.edu/wobbrock/pubs/chi-09.2.pdf>>, (Apr. 4, 2009), 10 pages.

Wyatt, Paul “Flash/the art of parallax scrolling”, .net Magazine, (Aug. 1, 2007), pp. 74-76.

Yang, Seungji et al., “Semantic Photo Album Based on MPEG-4 Compatible Application Format”, Retrieved from: <<http://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=04146254>>, (2007), 2 Pages.

“Application User Model IDs”, Retrieved from: <[http://msdn.microsoft.com/en-us/library/dd378459\(VS.85\).aspx](http://msdn.microsoft.com/en-us/library/dd378459(VS.85).aspx)> on Sep. 28, 2010, (2010), 6 pages.

“Class ScrollView”, Retrieved from: <<http://www.blackberry.com/developers/docs/6.0.0api/net/rim/device/api/ui/ScrollView.html>> on Sep. 28, 2010, 13 pages.

“Enhanced IBM Power Systems Software and PowerVM Restructuring”, *IBM United States Announcement 208-082*, dated Apr. 8, 2008, available at <http://www.ibm.com/common/ssi/rep_ca/2/897/ENUS208-082/ENUS208082.PDF>, (Apr. 8, 2008), pp. 1-19.

“eXtreme Energy Conservation: Advanced Power-Saving Software for Wireless Devices”, *White Paper, Freescale Semiconductor, Inc.*, Document No. XTMENRGYCNSVWP, Rev #0, available at <http://www.freescale.com/files/32bit/doc/white_paper/XTMENRGYCNSVWP.pdf>, (Feb. 2006), 15 pages.

“Final Office Action”, U.S. Appl. No. 11/305,789, (Apr. 1, 2009), 10 pages.

“Final Office Action”, U.S. Appl. No. 11/502,264, (Feb. 4, 2010), 15 pages.

“Final Office Action”, U.S. Appl. No. 11/502,264, (Apr. 3, 2009), 9 pages.

“GnomeCanvas”, Retrieved from: <<http://library.qnome.org/devel/libgnomecanvas/unstable/GnomeCanvas.html>> on Sep. 28, 2010, 11 pages.

“How Do I Cancel a “Drag” Motion on an Android Seekbar?”, retrieved from <<http://stackoverflow.com/questions/2917969/how-do-i-cancel-a-drag-motion-on-an-android-seekbar>> on Jun. 20, 2011, (May 28, 2010), 1 page.

“How do I use Categories with my Weblog?”, Retrieved from: <http://tpsupport.mtcs.sixapart.com/tp/us-tp1/how_do_i_use_categories_with_my_weblog.html> on Sep. 28, 2010, (Sep. 16, 2009), 3 pages.

“iPad User Guide”, retrieved from <http://cyndidannerkuhn.info/CDK/iPads_Resources_files/iPad_User_Guide.pdf> on Jun. 17, 2011, 154 pages.

“Magic mouse”, Retrieved from: <<http://www.apple.com/magicmouse/>> on May 10, 2011, 3 pages.

“moGo beta v.0.4”, Retrieved from: <<http://forum.xda-developers.com/showthread.php?t=375196>> on Sep. 27, 2010, (Mar. 7, 2008), 10 pages.

“New Features in WhatsUp Gold v12.0”, retrieved from <<http://www.netbright.co.th/?name=product&file=readproduct&id=12>> on Jun. 10, 2011, 4 pages.

“Non-Final Office Action”, U.S. Appl. No. 11/305,789, (Sep. 21, 2009), 5 pages.

“Non-Final Office Action”, U.S. Appl. No. 11/502,264, (Sep. 30, 2009), 15 pages.

(56)

References Cited

OTHER PUBLICATIONS

“Notice of Allowance”, U.S. Appl. No. 11/305,789, (Nov. 23, 2009), 8 pages.

“Notifications”, retrieved from <<http://msdn.microsoft.com/en-us/library/aa511497.aspx>> on May 10, 2011, 16 pages.

“OmneMon™ System Resource Metrics”, retrieved from <http://www.omnesys.com/documents/OmneMonSRM_Brochure.pdf> on Jun. 10, 2011, 3 pages.

“ONYX Graphics Announces New ONYX Prepedge Job Preparation Software”, retrieved from <<http://www.largeformatreview.com/rip-software/433-onyx-graphics-announces-new-onyx->> on May 10, 2011, 2 pages.

“The Map Screen”, retrieved from <<http://www.symbianos.org/whereamiusersguide>> on Jun. 17, 2011, 3 pages.

“User Guide”, retrieved from <<http://wireframesketcher.com/help/help.html>> on Jun. 17, 2011, 19 pages.

“Windows 8 Is Gorgeous, But Is It More Than Just a Shell? (Video)”, retrieved from <<http://techcrunch.com/2011/06/02/windows-8-gorgeous-shell-video/>> on Jun. 20, 2011, (Jun. 2, 2011), 6 pages.

“Windows Phone 7 Live Tiles”, Retrieved from: <http://www.knowyourmobile.com/microsoft/windowsphone7/startscreen/640737/windows_phone_7_live_tiles.html> on May 11, 2011, (Oct. 20, 2010), 3 pages.

“YUI 3: ScrollView [beta]”, Retrieved from: <<http://developer.yahoo.com/yui/3/scrollview/>> on Sep. 28, 2010, 5 pages.

Bjork, Staffan et al., “Redefining the Focus and Context of Focus+Context Visualizations”, In *Proceedings of INFOVIS 2000*, Available at <<http://www.johan.redstrom.se/papers/redefining.pdf>>, (Oct. 2000), 9 pages.

Bowes, James et al., “Transparency for Item Highlighting”, *Faculty of Computing Science, Dalhousie University*, Available at <<http://torch.cs.dal.ca/~dearman/pubs/GI2003-bowes,dearman,perkins-paper.pdf>>, (2003), 2 pages.

Buring, Thorsten “User Interaction with Scatterplots on Small Screens—A Comparative Evaluation of Geometric-Semantic Zoom and Fisheye Distortion”, *IEEE Transactions on Visualization and Computer Graphics*, vol. 12, Issue 5, Available at <<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.134.4568&rep=rep1&type=pdf>>, (Sep. 2006), pp. 829-836.

Carrera, Enrique V., et al., “Conserving Disk Energy in Network Servers”, available at <<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.6.8301&rep=rep1&type=ps>>, (Nov. 2002), 15 pages.

Cawley, Christian “How to Customise Your Windows Phone 7”, Retrieved from: <<http://www.brighthub.com/mobile/windows-mobile-platform/articles/95213.aspx>> on May 10, 2011, (Nov. 12, 2010), 3 pages.

Cawley, Christian “Windows Phone 7 Customization Tips and Tricks”, retrieved from <<http://www.brighthub.com/mobile/windows-mobile-platform/articles/95213.aspx>> on Jun. 20, 2011, (May 16, 2011), 2 pages.

Cohen, Michael F., et al., “Wang Tiles for Image and Texture Generation”, In *Proceedings of SIGGRAPH 2003*, Available <<http://research.microsoft.com/en-us/um/people/cohen/WangFinal.pdf>>, (2003), 8 pages.

Davis, Ashley “A WPF Custom Control for Zooming and Panning”, Retrieved from: <<http://www.codeproject.com/KB/WPF/zoomandpancontrol.aspx>> on Sep. 28, 2010 (Jun. 29, 2010), 21 pages.

Delimarsky, Den “Sending Tile Push Notifications on Windows Phone 7”, retrieved from <<http://mobile.dzone.com/articles/sending-tile-push>> on May 10, 2011, (Aug. 25, 2010), 2 pages.

Denoue, Laurent et al., “WebNC: Efficient Sharing of Web Applications”, In *Proceedings of WWW 2009*, Available at <<http://www.fxpal.com/publications/FXPAL-PR-09-495.pdf>>, (2009), 2 pages.

Dunsmuir, Dustin “Selective Semantic Zoom of a Document Collection”, Available at <<http://www.cs.ubc.ca/~tmm/courses/533/projects/dustin/proposal.pdf>>, (Oct. 30, 2009), pp. 1-9.

Fisher, Bill “Cool Discussion of Push Notifications—Toast and Tile—on Windows Phone”, Retrieved from: <[\[windowsphoneexpert.com/Connection/forums/p/4153/18399.aspx\]\(http://windowsphoneexpert.com/Connection/forums/p/4153/18399.aspx\)> on Sep. 29, 2010, \(May 3, 2010\), 3 pages.](http://www.</p>
</div>
<div data-bbox=)

Janecek, Paul et al., “An Evaluation of Semantic Fisheye Views for Opportunistic Search in an Annotated Image Collection”, Available at <<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.67.3084&rep=rep1&type=pdf>>, (Feb. 15, 2005), pp. 1-15.

Paul, Ryan “Hands-on: KDE 4.5 Launches with Tiling, New Notifications”, Retrieved from: <<http://arstechnica.com/open-source/reviews/2010/08/hands-on-kde-45-launches-with-tiling-new-notifications.ars>> on Sep. 29, 2010, (Aug. 2010), 3 pages.

Ray, Bill “Microsoft Re-Tiles Mobile Platform for Windows 7 Era”, retrieved from <http://www.theregister.co.uk/2010/02/15/windows_phone_7_series/> on May 11, 2011, (Feb. 15, 2010), 2 pages.

Ritscher, Walt “Using Surface APIs in your WPF application—Part 1”, Retrieved from: <<http://blog.wpfwonderland.com/2009/06/30/using-surface-apis-in-your-wpf-application/>> on Sep. 28, 2010, (Jun. 30, 2009), 7 pages.

Sandoval, Guillermo L., “A development platform and execution environment for mobile applications”, *Universidad Autónoma de Baja California, School of Chemical Sciences and Engineering*, Available at <<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.86.7989&rep=rep1&type=pdf>>, (2004), 18 pages.

Smith, Greg et al., “GroupBar: The TaskBar Evolved”, *Proceedings of OZCHI 2003*, Available at <<http://research.microsoft.com/pubs/64316/ozchi2003-groupbar.pdf>>, (Nov. 2003), pp. 1-10.

Vornberger, Jan “Bluetile”, Retrieved from: <<http://www.bluetile.org>> on Sep. 29, 2010, 5 pages.

Wilson, Andrew D., “Robust Computer Vision-Based Detection of Pinching for One and Two-Handed Gesture Input”, In *Proceedings of UIST 2006*, Available at <<http://research.microsoft.com/en-us/um/people/awilson/publications/wilsonuist2006/uist%202006%20taffi.pdf>>, (Oct. 2006), 4 pages.

Wu, Chung et al., “Achieving a Superior Ownership Experience in Manageability and Quality for Siebel CRM”, available at <<http://www.oracle.com/us/products/enterprise-manager/superior-exp-for-siebel-crm-068962.pdf>>, (Aug. 2008), 25 pages.

“Final Office Action”, U.S. Appl. No. 11/502,264, (Mar. 29, 2013), 16 pages.

“Final Office Action”, U.S. Appl. No. 13/655,386, (Jun. 6, 2013), 34 pages.

“Final Office Action”, U.S. Appl. No. 13/656,354, (Jun. 17, 2013), 14 pages.

“Final Office Action”, U.S. Appl. No. 13/657,646, (May 6, 2013), 12 pages.

“Final Office Action”, U.S. Appl. No. 13/657,789, (Jun. 21, 2013), 35 pages.

“My Favorite Gadgets, System Monitor II”, Retrieved from <<http://www.myfavoritegadgets.info/monitors/SystemMonitorII/system-monitorII.html>> Mar. 12, 2013, (Jun. 8, 2010), 5 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/972,967, (Jan. 30, 2013), 19 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/977,584, (Dec. 7, 2012), 8 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/118,204, (Feb. 28, 2013), 13 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/118,257, (Mar. 5, 2013), 19 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/118,321, (Jun. 10, 2013), 32 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/118,333, (Jul. 5, 2013), 18 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/118,339, (Feb. 11, 2013), 15 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/118,347, (Feb. 12, 2013), 14 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/196,272, (Feb. 6, 2013), 10 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/224,258, (Jan. 8, 2013), 35 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/229,693, (Mar. 12, 2013), 21 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/492,495, (Dec. 19, 2012), 6 pages.

(56)

References Cited

OTHER PUBLICATIONS

“Non-Final Office Action”, U.S. Appl. No. 13/655,386, (Dec. 26, 2012), 23 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/656,354, (Feb. 6, 2013), 10 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/656,574, (Jan. 31, 2013), 21 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/657,621, (Feb. 7, 2013), 19 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/657,646, (Jan. 3, 2013), 13 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/657,789, (Jan. 9, 2013), 38 pages.

“Notice of Allowance”, U.S. Appl. No. 12/977,584, (Jun. 19, 2013), 5 pages.

“Notice of Allowance”, U.S. Appl. No. 13/492,495, (Apr. 26, 2013), 5 pages.

“Notice of Allowance”, U.S. Appl. No. 13/655,390, (May 24, 2013), 5 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2011/067075, (Dec. 12, 2012), 10 pages.

“PCT Search Report and Written Opinion”, Application No. PCT/US2012/047091, (Dec. 27, 2012), 15 pages.

Al Zahir, Omar “Droptiles—Metro Style Live Tiles Enabled Web 2.0 Dashboard”, Retrieved from <<http://oazahir.github.com/Droptiles/>> on Mar. 5, 2013, (Jul. 18, 2012), 7 pages.

Blankenburg, Jeff “31 Days of Mango | Day #11: Live Tiles”, Retrieved from <<http://www.jeffblankenburg.com/2011/11/11/31-days-of-mango-day-11-live-tiles/>> on Mar. 5, 2013, (Nov. 11, 2011), 10 pages.

Bruzzese, J. P., “Using Windows 7, Managing and Monitoring Windows 7—Chapter 11”, Que Publishing, (May 5, 2010), 33 pages.

Egan, Daniel “Modifying Live Tiles in a Background Process”, Retrieved from <<http://thesociablegeek.com/windows-8/livetiles/modifying-live-tiles-in-a-background-process/>> on Mar. 5, 2013, (Aug. 31, 2012), 24 pages.

Gralla, Preston “Windows XP Hacks, Chapter 13—Hardware Hacks”, O’Reilly Publishing, (Feb. 23, 2005), 25 pages.

Horowitz, Michael “Installing and Tweaking Process Explorer part 2”, Retrieved from <http://web.archive.org/web/20110510093838/http://blogs.computerworld.com/16165/installing_and_tweaking_process_explorer_part_2> on Mar. 12, 2013, (May 23, 2010), 7 pages.

Kurdi, Samer “Acer GridVista: snap your windows to pre-defined sections on your screen(s)”, Retrieved from <<http://www.freewaregenius.com/acer-gridvista-snap-your-windows-to-pre-defined-sections-of-your-screens/>> on Jun. 30, 2013, (Jan. 19, 2010), 6 pages.

Kurdi, Samer “WinSplit Revolution”, Retrieved from <<http://www.freewaregenius.com/winsplit-revolution/>> on Jun. 30, 2013, (Aug. 22, 2007), 4 Pages.

Livingston, et al., “Windows 95 Secrets”, 1995, *IDG Books Worldwide*, 3rd Edition, (1995), pp. 121-127.

Pendharkar, Mrudul V., “Fluid Home Screen for Mobile Phones”, *Helsinki Metropolia University of Applied Sciences, Master of Engineering, Information Technology, Thesis*, Available at <<http://theseus17-kk.lib.helsinki.fi/bitstream/handle/10024/46481/FinalThesis3.pdf?sequence=1/>>, (Apr. 12, 2012), 48 pages.

Perry Greg “Teach Yourself Windows 95 in 24 Hours”, 1997, Sams Publishing, 2nd Edition, (1997), pp. 193-198.

Rathbone, Doug “Windows Phone 7 Live Tile Schedules—How to Execute Instant Live Tile Updates”, Retrieved from <[\[diaryofaninja.com/blog/2011/04/03/windows-phone-7-live-tile-schedules-ndash-executing-instant-live-tile-updates\]\(http://www.diaryofaninja.com/blog/2011/04/03/windows-phone-7-live-tile-schedules-ndash-executing-instant-live-tile-updates\)> on Mar. 11, 2013, \(Apr. 3, 2011\), 8 pages.

“Final Office Action”, U.S. Appl. No. 12/721,422, \(Mar. 7, 2013\), 10 pages.

“Final Office Action”, U.S. Appl. No. 12/972,967, \(Oct. 11, 2013\), 21 pages.

“Non-Final Office Action”, U.S. Appl. No. 12/721,422, \(Oct. 1, 2012\), 7 pages.

“Supplemental Notice of Allowance”, U.S. Appl. No. 12/977,584, \(Oct. 11, 2013\), 2 pages.

“You’ve Got Mail 1.4 Build”, retrieved from <\[http://www.fileshome.com/Shows_Animation_Plays_Sound_Automatic_N...>\]\(http://www.fileshome.com/Shows_Animation_Plays_Sound_Automatic_N...\) on Jan. 6, 2010, \(Jun. 18, 2007\), 2 pages.

Farrugia, Michael et al., “Cell Phone Mini Challenge: Node-Link Animation Award Animating Multivariate Dynamic Social Networks”, *IEEE Symposium on Visual Analytics Science and Technology*, Columbus, OH, USA, Oct. 21-23, 2008 \(Oct. 21, 2008\), 2 pages.

Keranen, Jaakko “OpenGL-based User Interface Toolkit for Symbian Mobile Devices”, *Master of Science Thesis, Tamere University of Technology, Department of Information Technology*, \(Apr. 6, 2005\), 88 pages.

“Final Office Action”, U.S. Appl. No. 12/983,106, \(Oct. 7, 2013\), 19 pages.

“Final Office Action”, U.S. Appl. No. 13/118,339, \(Aug. 22, 2013\), 21 pages.

“Final Office Action”, U.S. Appl. No. 13/118,347, \(Aug. 15, 2013\), 25 pages.

“Final Office Action”, U.S. Appl. No. 13/224,258, \(Sep. 11, 2013\), 37 pages.

“Final Office Action”, U.S. Appl. No. 13/229,693, \(Sep. 4, 2013\), 23 pages.

“Final Office Action”, U.S. Appl. No. 13/656,574, \(Aug. 23, 2013\), 20 pages.

“Final Office Action”, U.S. Appl. No. 13/657,621, \(Sep. 10, 2013\), 18 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/073,300, \(Jul. 25, 2013\), 13 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/196,272, \(Sep. 3, 2013\), 5 pages.

“Notice of Allowance”, U.S. Appl. No. 12/721,422, \(Jul. 11, 2013\), 9 pages.

“Supplemental Notice of Allowance”, U.S. Appl. No. 12/977,584, \(Sep. 16, 2013\), 2 pages.

“Supplemental Notice of Allowance”, U.S. Appl. No. 13/655,390, \(Jul. 25, 2013\), 2 pages.

“Supplemental Notice of Allowance”, U.S. Appl. No. 13/655,390, \(Sep. 19, 2013\), 2 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/228,707, Oct. 25, 2013, 12 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/655,390, Dec. 17, 2012, 12 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/229,155, Nov. 18, 2013, 14 pages.

“Non-Final Office Action”, U.S. Appl. No. 13/228,876, Nov. 22, 2013, 14 pages.

“Final Office Action”, U.S. Appl. No. 13/118,204, Nov. 21, 2013, 24 pages.

“Final Office Action”, U.S. Appl. No. 13/118,321, Dec. 19, 2013, 30 pages.

“Notice of Allowance”, U.S. Appl. No. 13/196,272, Nov. 8, 2013, 8 pages.](http://www.</p>
</div>
<div data-bbox=)

* cited by examiner

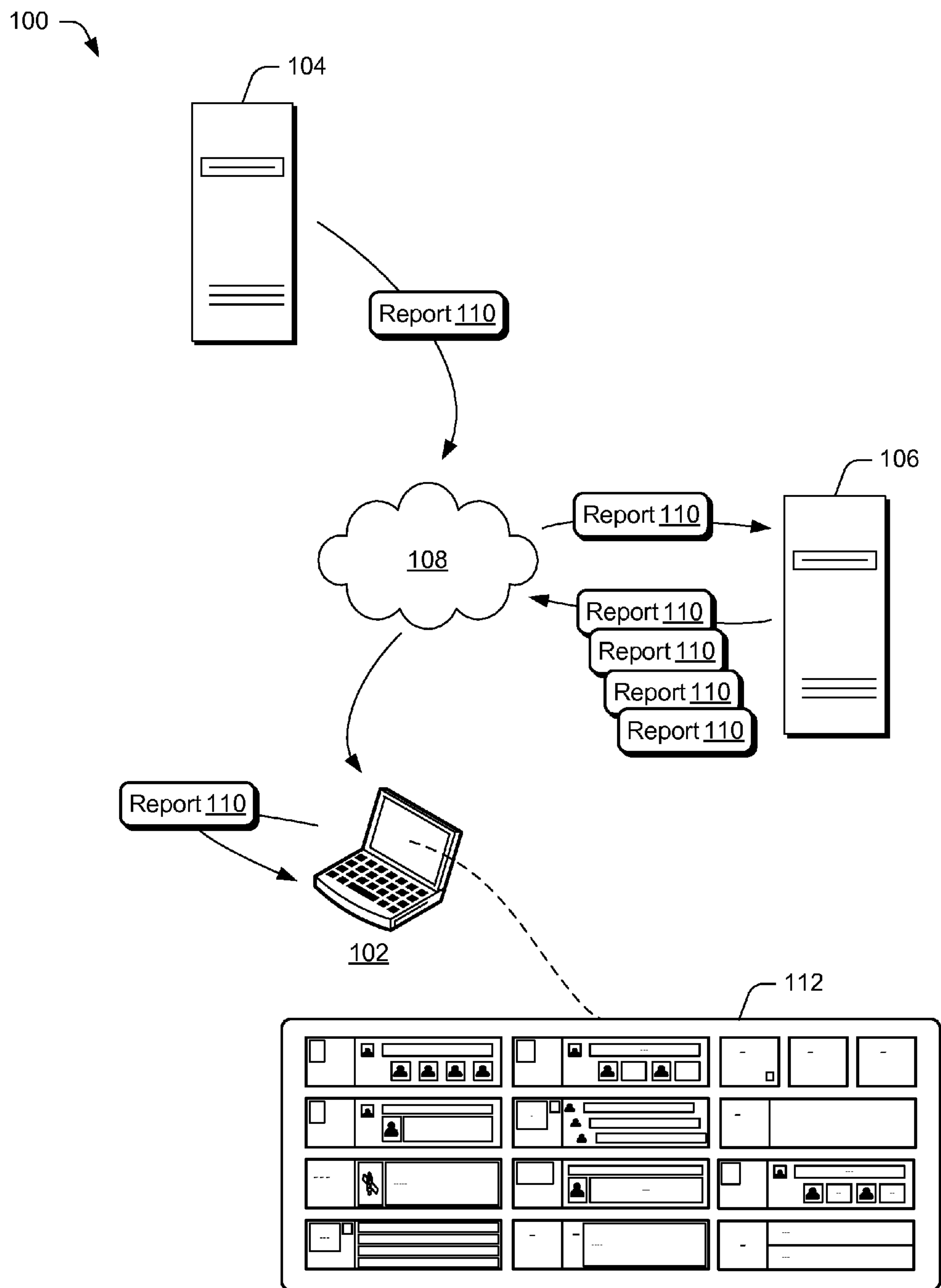


Fig. 1

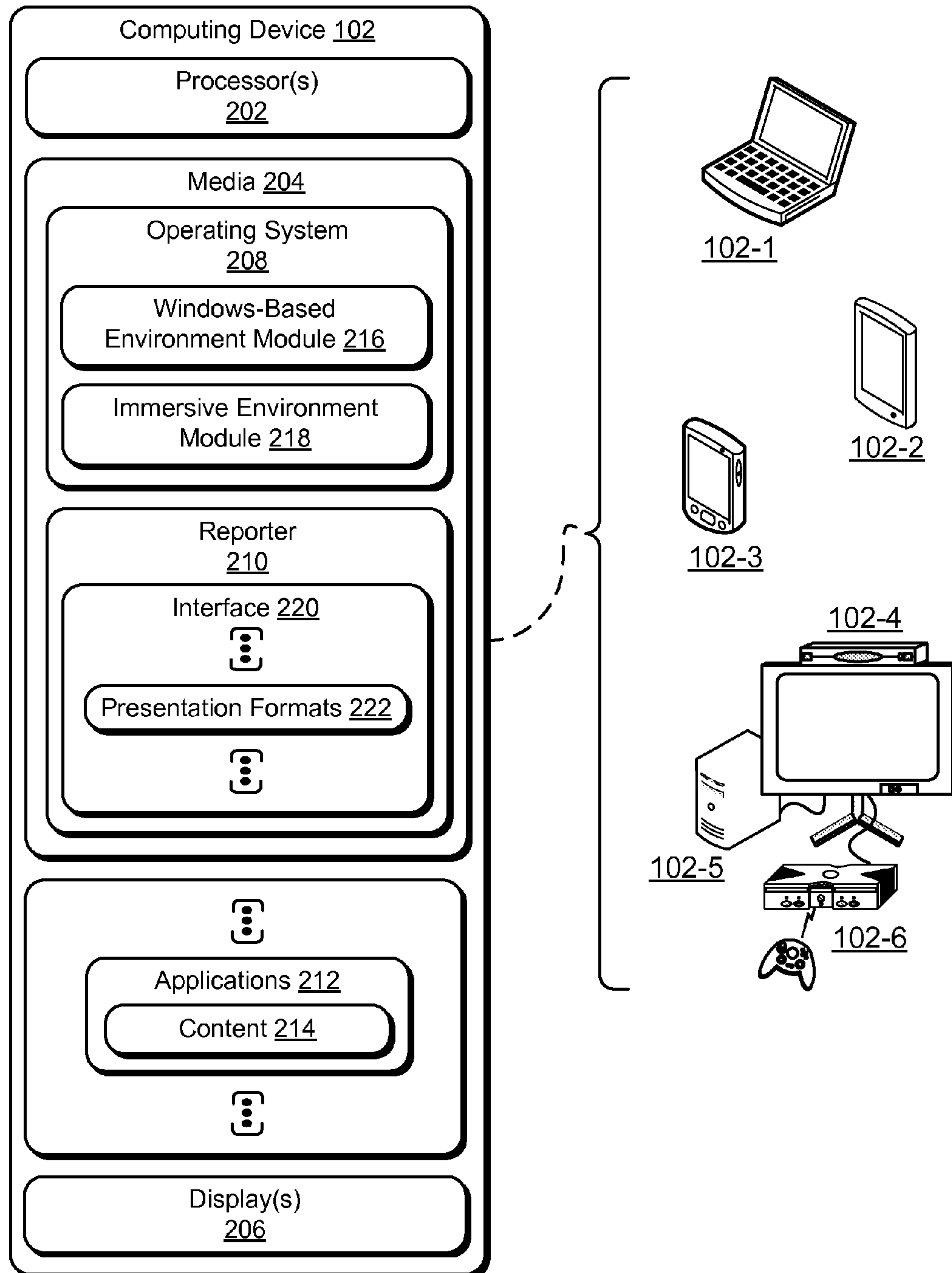


Fig. 2

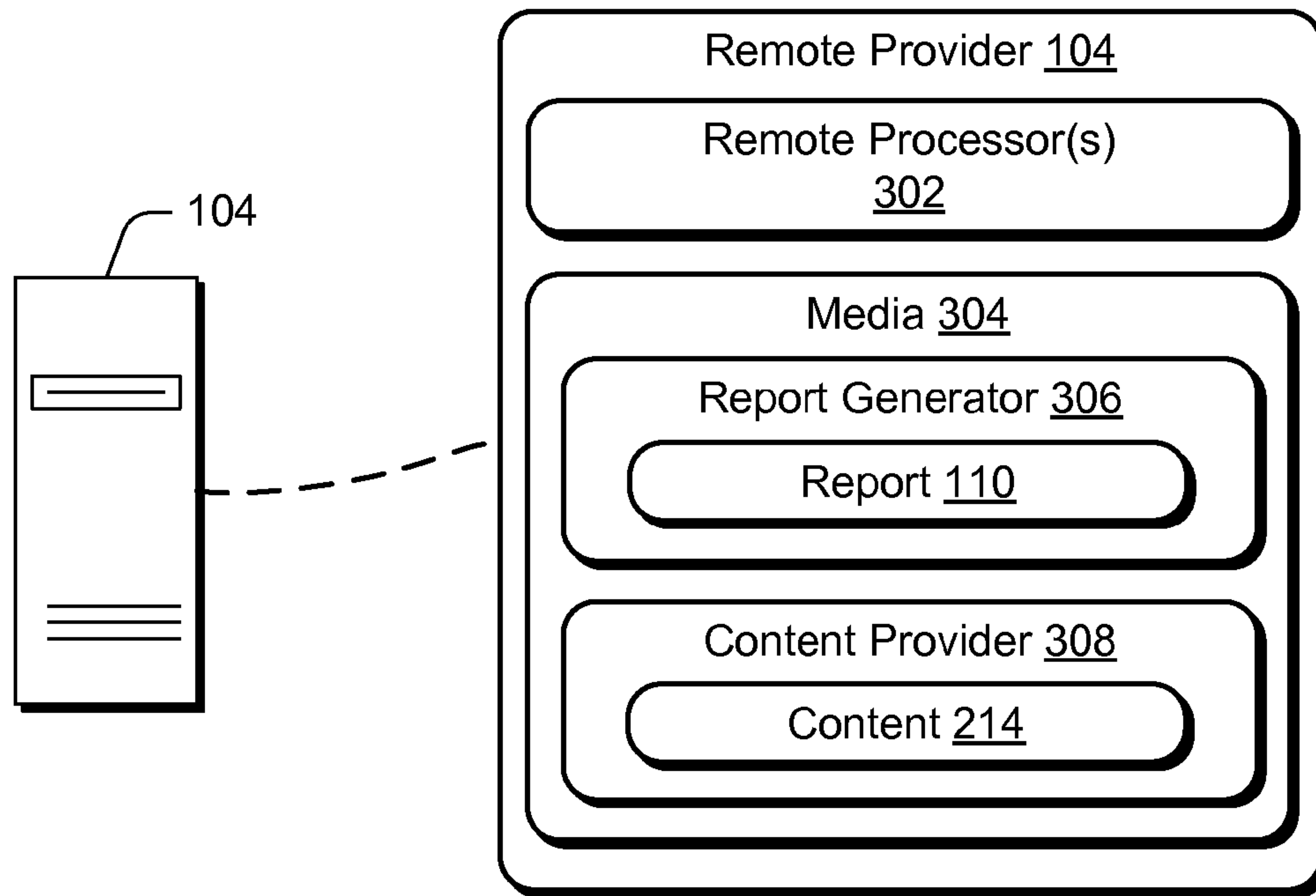


Fig. 3

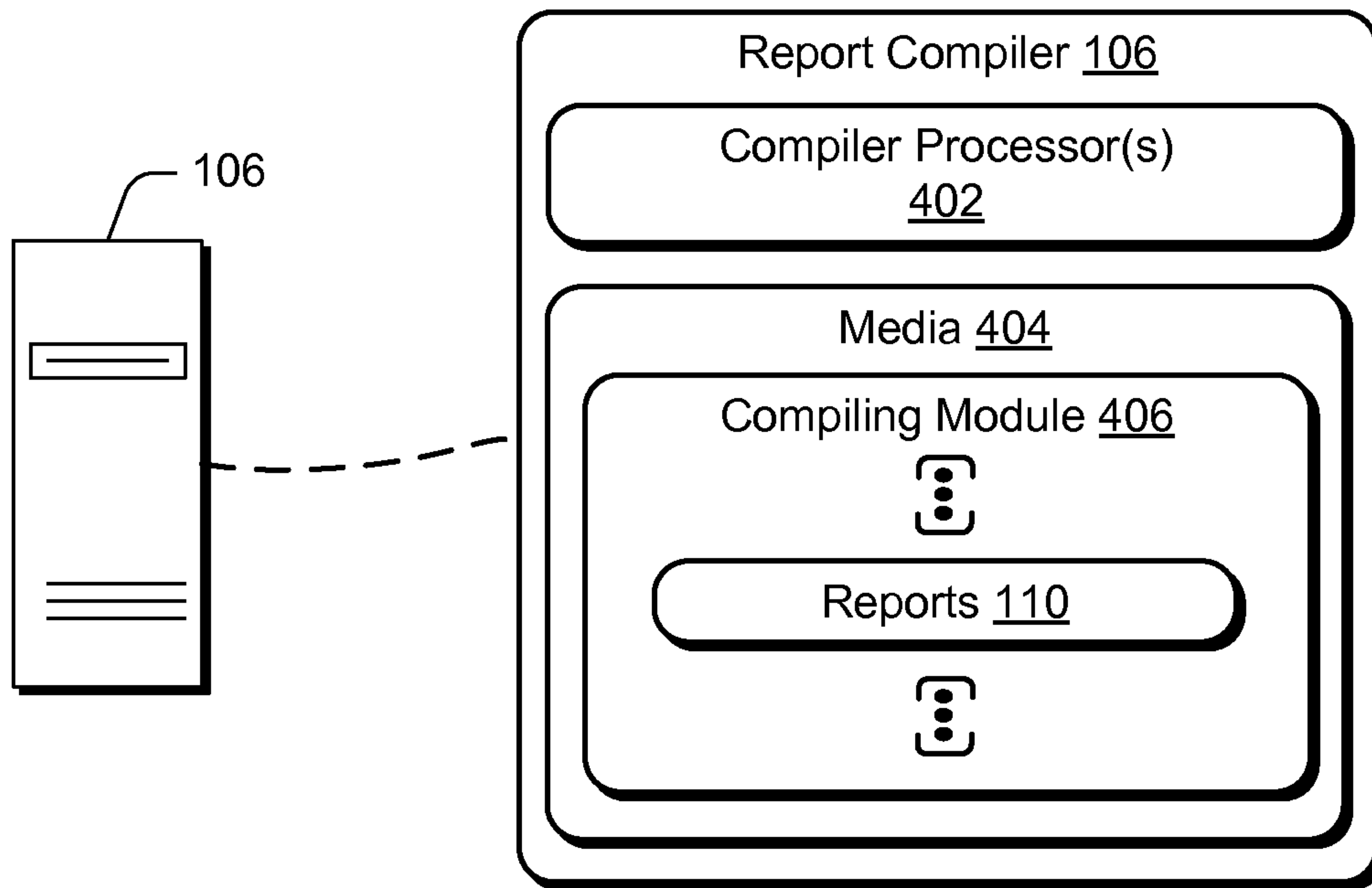


Fig. 4

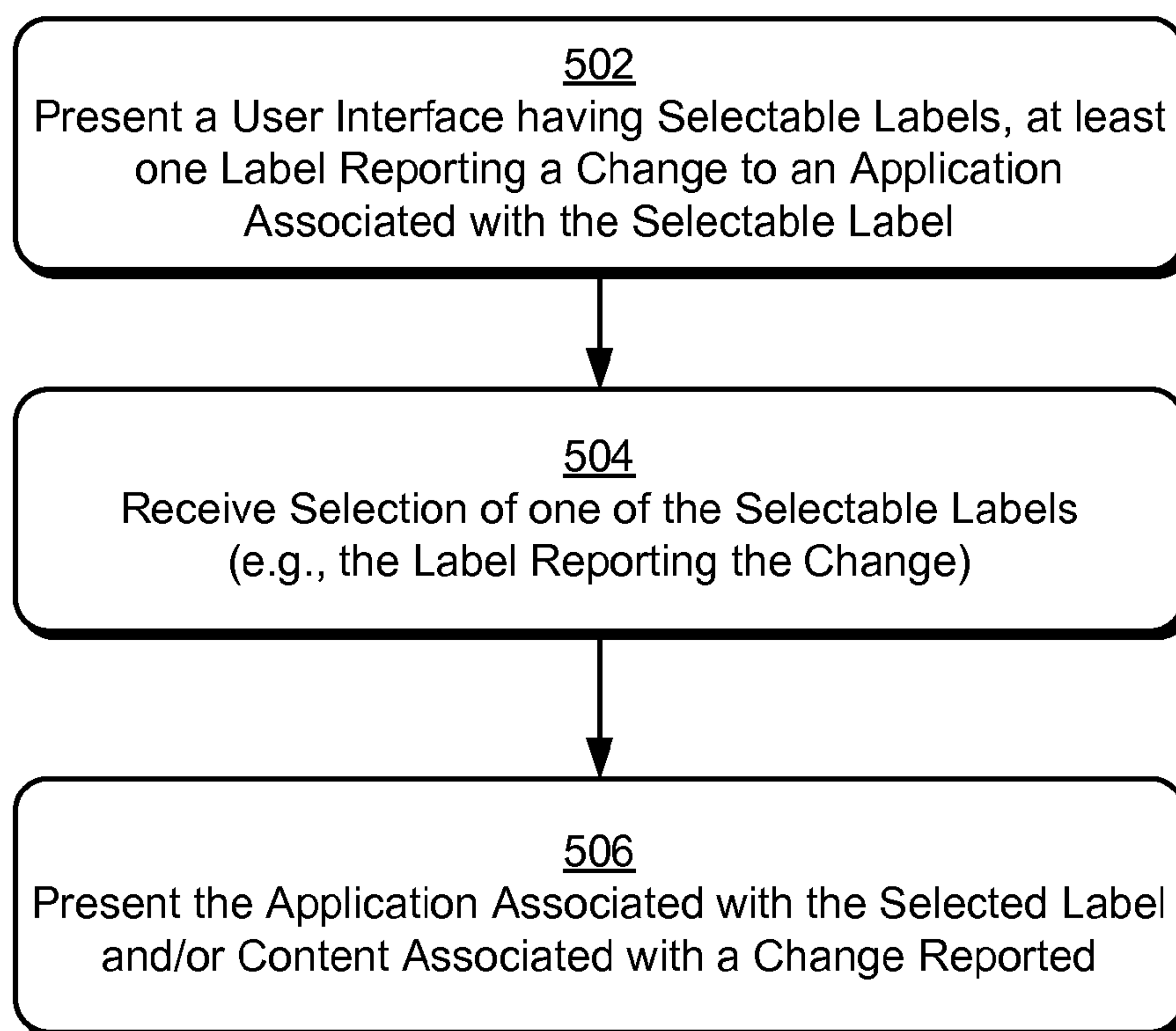
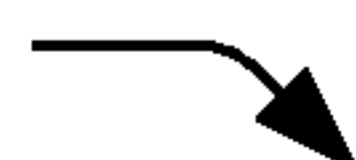
500 

Fig. 5

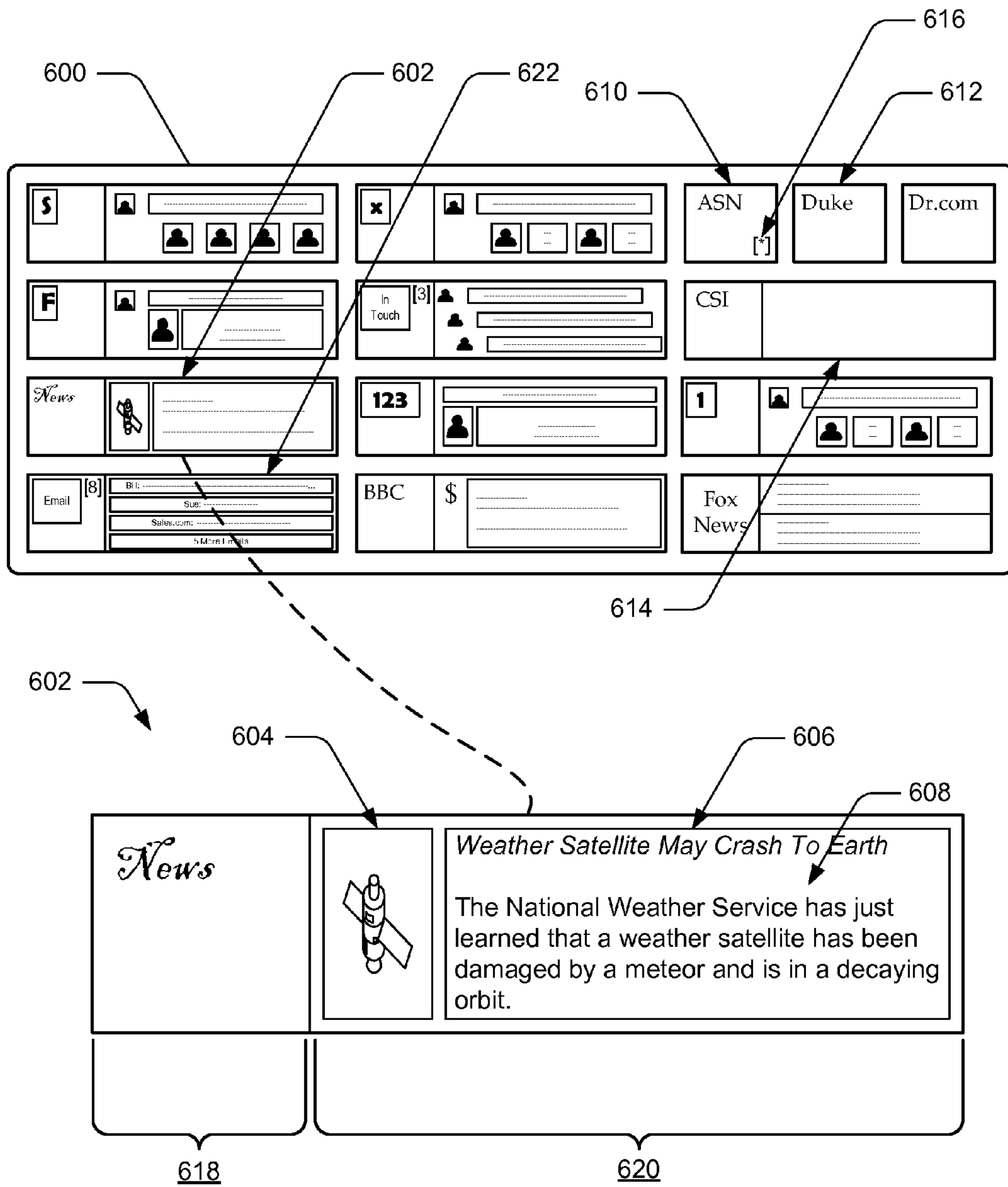


Fig. 6

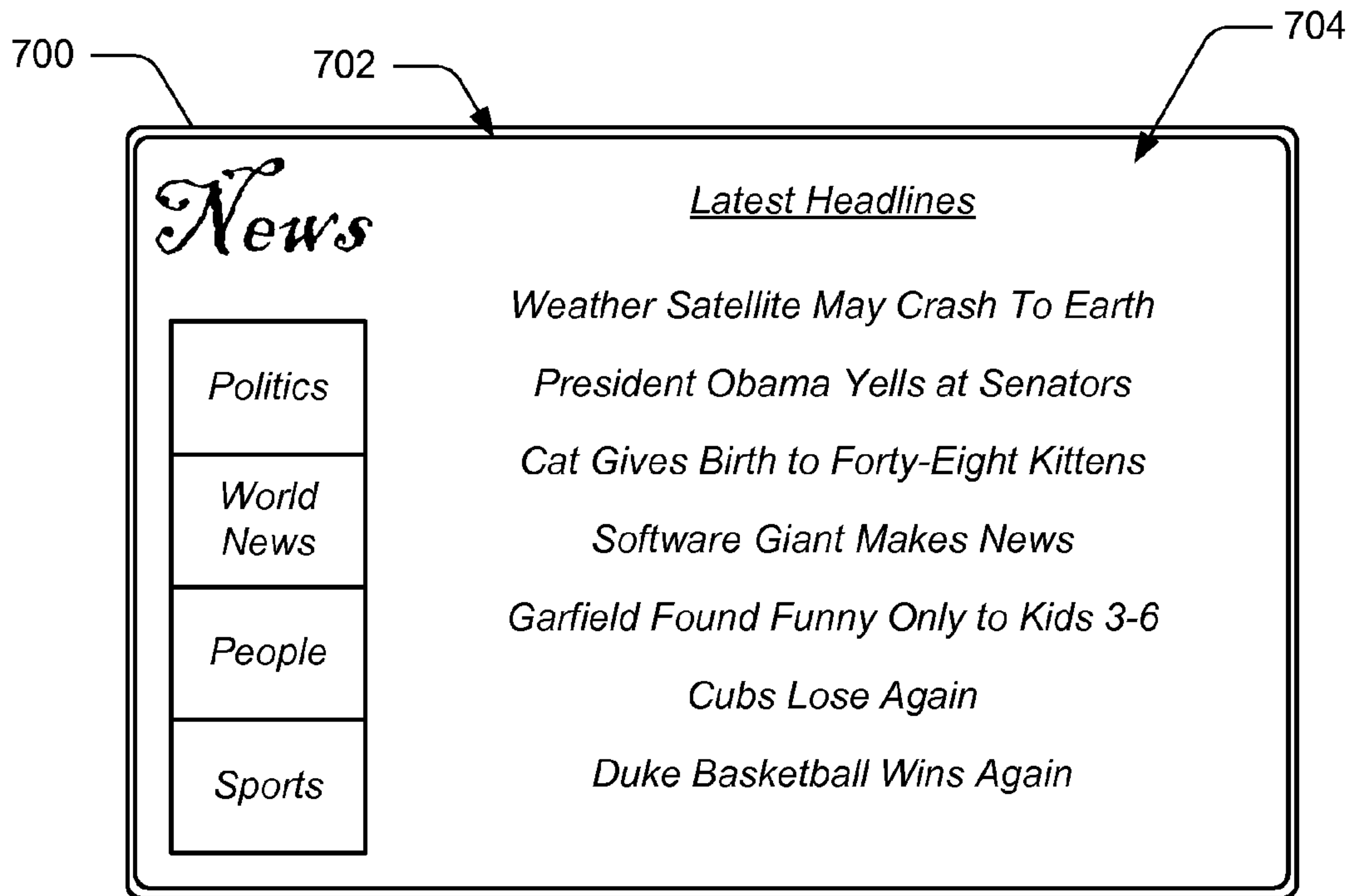


Fig. 7

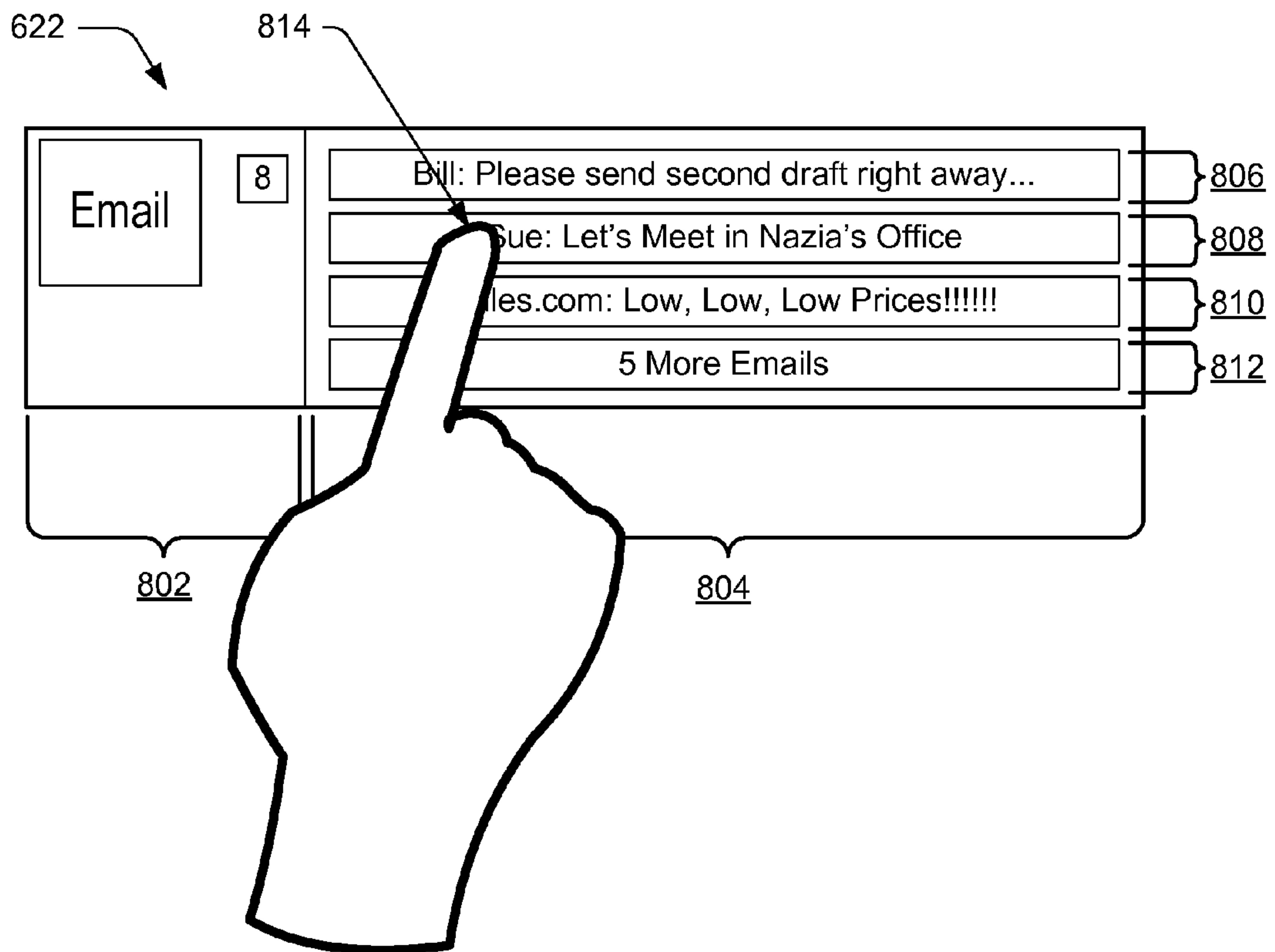


Fig. 8

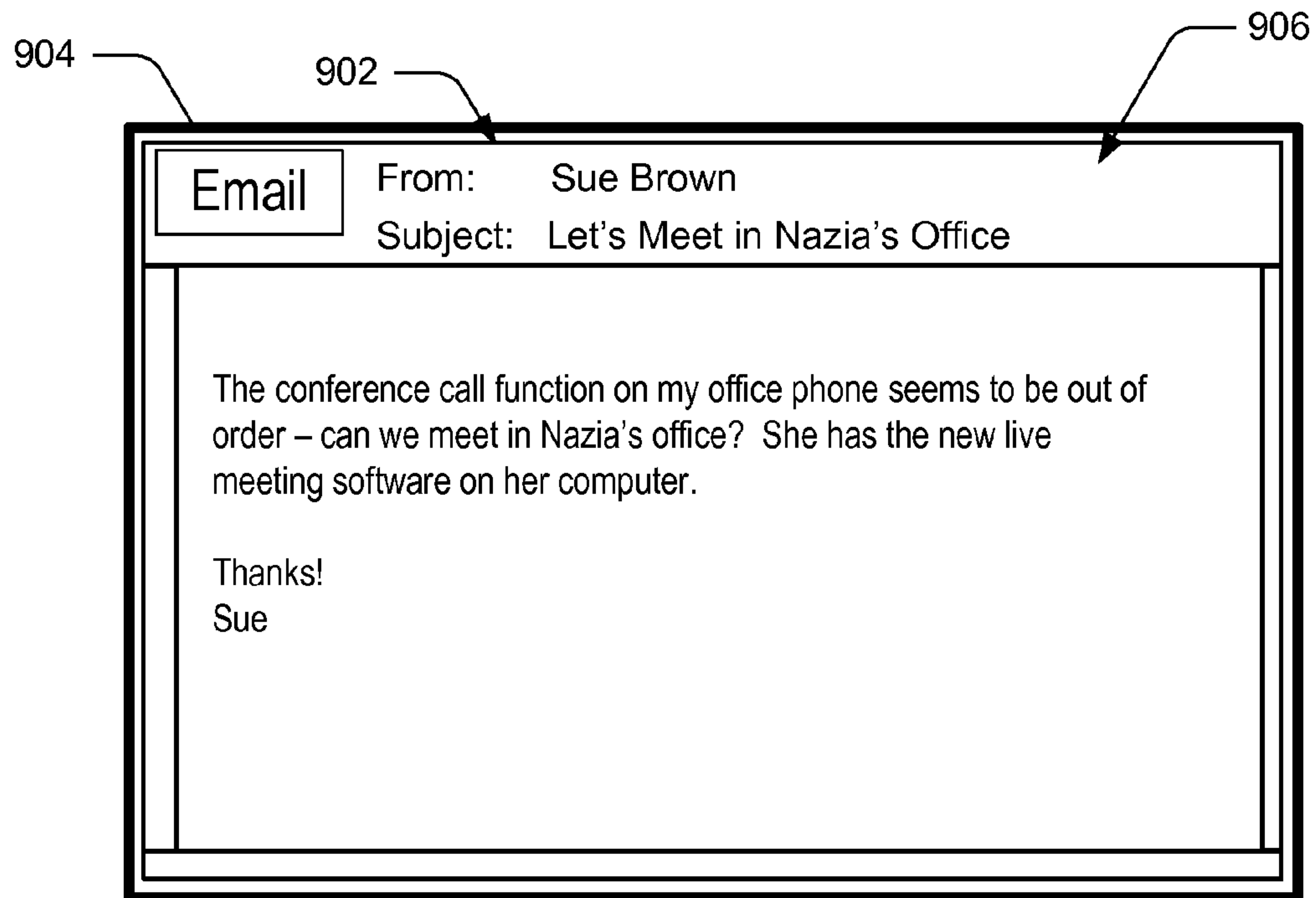


Fig. 9

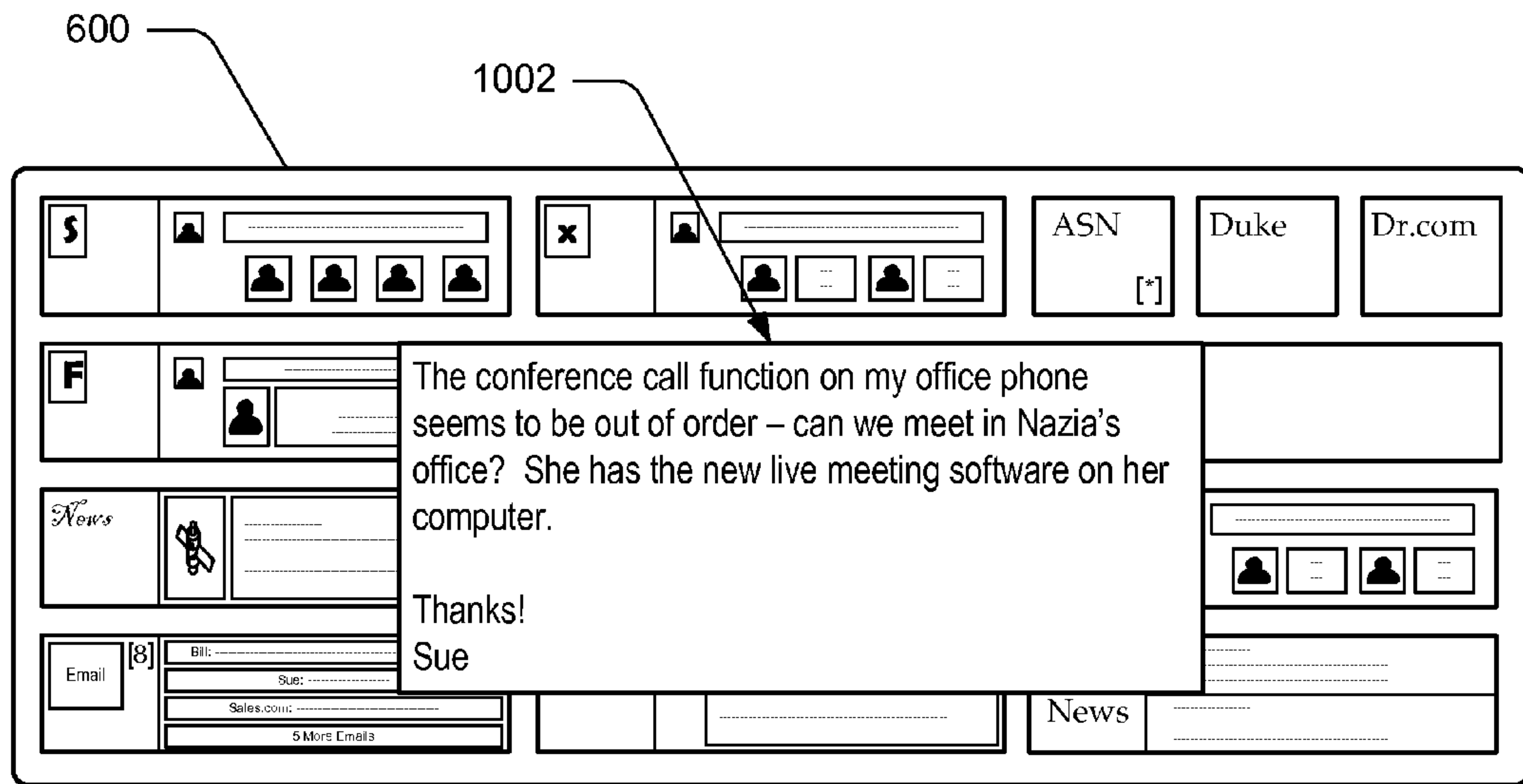


Fig. 10

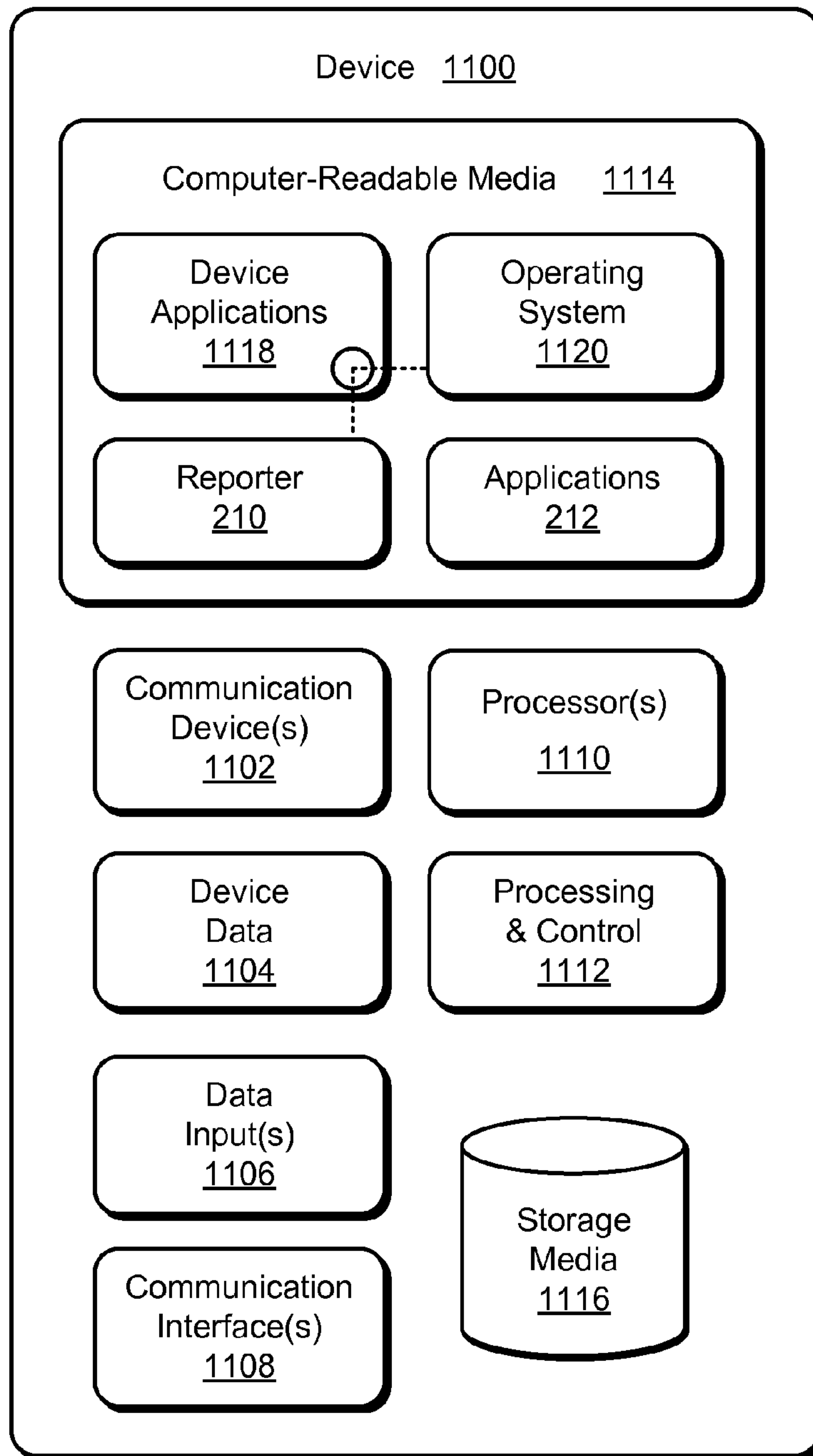


Fig. 11

1

**APPLICATION REPORTING IN AN
APPLICATION-SELECTABLE USER
INTERFACE**

BACKGROUND

Conventional operating systems permit users to launch applications, often through a user interface having selectable icons for the applications. In some cases a user selects to launch an application from this user interface and does not care whether there is anything new for that application.

In many cases, however, users launch applications to find out what is new in those applications. A user wishing to find out what is new in her applications, for example, typically selects an icon for a desired application, in response to which the conventional operating system launches the application. This application then opens and, assuming it is one that presents content, presents that content. For some applications, such as news or social-networking websites, the application retrieves content from a remote source and then presents that content. It is at this point that the user sees the content, which may or may not be new since the last time the user viewed content for that application.

The user may continue this process of selecting applications, in response to which they are launched and present content, and then viewing the presented content to find out what, if anything, is new. Following this process will permit a user to see what is new in her applications, but doing so takes significant amounts of time and effort. This process also expends computing and bandwidth resources. Worse still, in some cases her applications may not have any new content, in which case all of this time, effort, and resources are wasted.

SUMMARY

This document describes techniques for application reporting in an application-selectable user interface. These techniques permit a user to view reports for applications in a user interface through which these applications may be selected. By so doing, a user may quickly and easily determine which applications to select based on their respective reports and then select them through the user interface.

This summary is provided to introduce simplified concepts for application reporting in an application-selectable user interface that is further described below in the Detailed Description. This summary is not intended to identify essential features of the claimed subject matter, nor is it intended for use in determining the scope of the claimed subject matter. Techniques and/or apparatuses for application reporting in an application-selectable user interface are also referred to herein separately or in conjunction as the “techniques” as permitted by the context.

BRIEF DESCRIPTION OF THE DRAWINGS

Embodiments for application reporting in an application-selectable user interface are described with reference to the following drawings. The same numbers are used throughout the drawings to reference like features and components:

FIG. 1 illustrates an example system in which techniques for application reporting in an application-selectable user interface can be implemented.

FIG. 2 illustrates an example embodiment of the computing device of FIG. 1.

FIG. 3 illustrates an example embodiment of the remote provider of FIG. 1.

2

FIG. 4 illustrates an example embodiment of the report compiler of FIG. 1.

FIG. 5 illustrates an example method for application reporting in an application-selectable user interface.

FIG. 6 illustrates an example user interface having fifteen selectable labels.

FIG. 7 illustrates an example presentation of a selected application in an immersive environment.

FIG. 8 illustrates a selectable label of FIG. 6 along with selectable sections reporting changes.

FIG. 9 illustrates an example presentation of a selected application in a windows-based environment.

FIG. 10 illustrates a pop-up window having content associated with a change to an application.

FIG. 11 illustrates an example device in which techniques for application reporting in an application-selectable user interface can be implemented.

DETAILED DESCRIPTION

Overview

This document describes techniques and apparatuses for application reporting in an application-selectable user interface. These techniques enable a user to see a report from an application that may or may not be currently executing and to select this application. If the application is executing, the techniques present the application responsive to the selection. If the application is not already executing the techniques first execute the application.

Assume, for example, that a user wishes to check what is new for her fifteen favorite applications. Assume that the user viewed four of these applications earlier during the day, but did not view the other eleven. Thus, some of these four applications may still be executing, thought that is not required. These techniques present, in a user interface from which these fifteen applications may be selected, reports for each of the applications, assuming any reports have arrived since the respective applications were last selected.

By way of example, assume that reports have been received for two of the four applications viewed earlier in the day. One of these applications is local to the user’s computing device, namely an email application. The techniques report, in an application-selectable user interface, that eight emails have arrived since the user last used the email application. The techniques also indicate some content associated with one or more of these emails, such as from whom they were received (e.g., Suzy Brown, Sales.com, etc.).

Assume that the other of the two applications is a social-networking website and that a report has been received that indicates that a friend of the user has added an entry to her social-networking page. The techniques indicate this in the user interface, and may also present content from the entry, such as “Bill Jones tagged you in a photo” along with a thumbnail image associated with Bill Jones (e.g., his picture).

Assume that a third application has received a report, this third application being a marketing website that has not recently been viewed by the user. The techniques report that this marketing website has a big sale going on through tomorrow.

As this example illustrates, the techniques can provide a user interface through which a user can view reports associated with multiple applications and select to present those applications. Here the user interface reports that a friend tagged the user, that a sale is on, and that eight emails from various entities have been received. Further still, the user interface shows that the other twelve applications have nothing new to report.

With all of this information at the user's fingertips, she may decide which application to select and which not to. She may select the social-networking website application to see the image in which she is tagged, the marketing application to see more about the sale, the email application to see the full content of one or more of the eight emails, or forgo selecting any of the applications. Thus, the user may decide that none of these reports are interesting enough to select the applications. In all of these cases the techniques permitted the user to make quick, easy, and informed decisions about what applications to select or not to select.

This is but one example of the many ways in which the techniques enable users to see reports from, and select application through, a user interface. Numerous other examples, as well as ways in which the techniques operate, are described below.

This discussion proceeds to describe an example environment in which the techniques may operate, methods performable by the techniques, and an example apparatus below.

Example Environment

FIG. 1 illustrates an example environment 100 in which techniques for application reporting in an application-selectable user interface can be embodied. Environment 100 includes a computing device 102, remote provider 104, optional report compiler 106, and communication network 108, which enables communication between these entities. In this illustration, computing device 102 receives reports 110 from three sources, remote provider 104, report compiler 106, and an application executing on computing device 102 (this application is shown in FIG. 2). Reports 110 indicate what is new or of potential interest for the selectable applications, such as a change to an application's content or status (e.g., a new email, entry, or article, or that a software update or expiration is approaching, to name just a few). Computing device 102 presents user interface 112, which includes selectable labels for applications and reports some or all of the information received in reports 110.

FIG. 2 illustrates an example embodiment of computing device 102 of FIG. 1, which is illustrated with six examples devices: a laptop computer 102-1, a tablet computer 102-2, a smart phone 102-3, a set-top box 102-4, a desktop computer 102-5, and a gaming device 102-6, though other computing devices and systems, such as servers and netbooks, may also be used.

Computing device 102 includes or has access to computer processor(s) 202, computer-readable storage media 204 (media 204), and one or more displays 206, four examples of which are illustrated in FIG. 2. Media 204 includes an operating system 208, reporter 210, and applications 212, each of which may provide content 214.

Operating system 208 includes or has access to window-based environment module 216 and/or immersive environment module 218. Applications selected through the techniques can be presented through a windows-based or immersive environment, as well as others.

Windows-based environment module 216 presents applications and accompanying content through windows having frames. These frames provide controls through which to interact with an application and/or controls enabling a user to move and size the window.

Immersive environment module 218 provides an environment by which a user may view and interact with one or more of applications 212 and corresponding content 214. In some embodiments, this environment presents content of, and enables interaction with, applications with little or no window frame and/or without a need for a user to manually size or position content. This environment can be, but is not required

to be, hosted and/or surfaced without use of a typical desktop environment. Thus, in some cases immersive environment module 218 presents an immersive environment that is not a window (even one without a substantial frame) and precludes usage of desktop-like displays (e.g., a taskbar). Further still, in some embodiments this immersive environment is similar to an operating system in that it is not closeable or capable of being un-installed. Examples of immersive environments are provided below as part of describing the techniques, though they are not exhaustive or intended to limit the techniques.

Reporter 210 includes, has access to, or generates an application-selectable user interface 220, an example of which is shown at 112 in FIG. 1. Interface 220 includes or has access to presentation formats 222. Reporter 210 reports changes associated with one or more of applications 212 through interface 220. As noted above, reports 110 may be received directly from one or more of applications 212, or another entity associated with one or more of applications 212, such as remote provider 104 or report compiler 106.

In some cases a report indicates which presentation format 222 is intended, in which case reporter 210 reports changes in the appropriate format through interface 220. Presentation formats 222 can be eXtensible Stylesheet Language Transformations (XSLT) in cases where reports 110 are received in eXtensible Markup Language (XML). In such a case, reporting in interface 220 is presenting using Hyper-Text Markup Language (HTML), though use of XSLT, XML, and HTML are optional, as are presentation formats 222 in general.

FIG. 3 illustrates example embodiments of remote provider 104. Remote provider 104 is shown as a singular entity for visual brevity, though multiple remote providers are also contemplated herein. Remote provider 104 includes or has access to provider processor(s) 302 and provider computer-readable storage media 304 (media 304). Media 304 includes report generator 306 and content provider 308.

Report generator 306 is capable of providing one or more reports 110 to computing device 102, either directly or indirectly through report compiler 106. In some embodiments, reports 110 include information useful for indicating a change, presenting content associated with the change, or visiting the application (e.g., with universal resource locators (URLs)).

Report generator 306 may act responsive to reporter 210, such as a request from reporter 210 for reports 110, though report generator 306 may also act to periodically send, or consistently make available, new and/or interesting content or data as it become available. Report generator 306 may indicate what is new since a user last selected a particular application, though it may also simply provide reports 110, with which reporter 210 may instead determine what is or is not new.

Content provider 308 provides content, such as content 214 associated with application 212. Content provider 308 may act in conjunction with report generator 306, such as to provide content 214 to report generator 306, which report generator 306 then provides a portion of (or sometimes all of) in report 110.

FIG. 4 illustrates an example embodiment of report compiler 106. Report compiler 106 is shown as a singular entity for visual brevity, though multiple compilers may also be used. Report compiler 106 includes or has access to compiler processor(s) 402 and compiler computer-readable storage media 404 (media 404). Media 404 includes compiling module 406, which is capable of receiving and compiling reports 110 from one or more sources, such as report provider 104. Compiling module 406 may receive reports for later provision to computing device 102, such as periodically or

when computing device **102** indicates that it is on. Compiling module **406** may determine which changes are new since a particular user last viewed content from an application and provide those of the reports **110** indicating these changes.

Ways in which entities of FIGS. **1-4** act and interact are set forth in greater detail below. The entities illustrated for computing device **102**, remote provider **104**, or report compiler **106**, respectively, can be separate or integrated.

Example Methods

FIG. **5** depicts a method **500** for application reporting in an application-selectable user interface. In portions of the following discussion reference may be made to environment **100** of FIG. **1** and as detailed in FIGS. **2-4**, reference to which is made for example only.

Block **502** presents a user interface having multiple, selectable labels associated with multiple applications, respectively. One of the multiple selectable labels reports a change associated with the application to which the selectable label is associated, though multiple changes for multiple applications or the same application may also be reported. Reporting of one or more changes is not required (e.g., at some times none of the applications will have a change to report).

By way of example, consider a case where reporter **210** of FIG. **2** presents a user interface **600** shown in FIG. **6**. This user interface **600** is but one of many types of user interfaces contemplated by user interface **220** of FIG. **2**, including a user interface having a single label. User interface **600** includes fifteen selectable labels, twelve of them relatively large and three relatively small.

This example user interface **600** reports changes to eleven of the twelve larger labels and one of the three small labels, though any variation of such a presentation is contemplated, such as changes to all or none of the selectable labels. Note that these changes, even if all of these changes were already received at the time a user selects to view user interface **600**, may be presented to each of the various labels and portions of the labels progressively. This progressive alteration of the labels can make user interface **600** look animated. Thus, the changes to the labels are not necessarily made all at once.

Further, in cases where multiple changes for an application are known, reporter **210** may present the newest of the changes or rotate through these changes. Reporter **210** may rotate through changes to maintain a “live” feel to user interface **600** or responsive to activity or inactivity with a label. Inactively with a label may indicate that the currently-indicated change is not of interest to a user. As another of the changes may be of more interest, the most-recent change may be rotated off of a label and an older (but still new) change rotated on to the label.

Consider first selectable label **602**, which is shown expanded in FIG. **6**. This selectable label **602** is associated with one of applications **212** of FIG. **2**, namely a “News” application. As shown, selectable label **602** reports a change associated with this application **212** within selectable label **602**, the change relative to a prior viewing, selection, or launching of this application **212** by a user associated with computing device **102**.

Assume that a user viewed the News application at 9 am and, on viewing user interface **600**, is presented with selectable label **602** reporting a change to the News application since 9 am (at 3 pm the same day, for example). Here the change is a new article concerning a weather satellite that has been damaged by a meteor and may crash to earth. Portions of content associated with the change (the change being the new article) are shown in selectable label **602**. These portions each report the change by indicating that a new article is now

available, here with an image **604** of a satellite, a title of the article at **606**, and a first sentence of the article at **608**.

Consider also three other example selectable labels, small selectable labels **610** and **612**, and another of the large selectable labels **614**. Small selectable label **610** reports a change to an application associated with this label, namely the “ASN” application. Label **610** reports a change with a change indicator **616** marked as “*”, though this indicator **616** does not indicate how many changes or any content associated with that change. This abbreviated report on a change may be desirable when the application associated with the label is not generally important to the user, or changes are often of a similar type and thus presenting content of the change is not meaningful, or simply because the user desires it.

Small selectable label **612**, on the other hand, does not report any changes. This non-reporting provides the user with valuable information, namely that the user need not select label **612** to see something new for the “Duke” application, as no changes exist since the user last visited the application.

Large selectable label **614** also does not report any changes, thus also providing the user with valuable information concerning changes (or lack thereof) for the “CSI” application.

As described, reporter **210** enables selection of applications and reports changes to those applications. Reporter **210** may also enable different selections through different areas of a label. Consider again label **602**. Here reporter **210** enables selection through application-identifying area **618** and reporting area **620**. This application-identifying area **618** shows an application-selected identifier for the “News” application at **622**, namely “News” in a particular font and color (color not shown). Reporter **210** enables a selection made to this application-identifying area **618** to present the “News” application at a default or prior-viewed setting, such as a home page or a last-viewed page of content. Thus, on selection of application-identifying area **618**, reporter **210** may refrain from presenting content associated with the reported change.

Reporter **210** enables a selection made to reporting area **620** to present the “News” application with the change, such as presenting content associated with the change, here opening a webpage at a universal resource locator (URL) associated with the content change. In such a case, reporter **210** presents the News application having the article that was shown in part in reporting area **620**.

Some labels may indicate multiple changes, such as reporting (with some associated content) the two newest entries to a social-networking website or emails received since the user last viewed an email application. In such a case, reporter **210** enables selection to each section reporting the change to present the associated application with content associated with that change, such as to open one of multiple emails reported.

By way of review, reporter **210** can report changes to various applications responsive to received reports, such as reports **110** of FIG. **1**, which can be received one-at-a-time, after compiling into batches, and/or from various sources. These reports **110** can be received or retrieved periodically, on selecting to display user interface **220**, and/or in real time. User interface **600**, for example, may alter selectable labels as a user views it due to reports coming in and being reported. Thus, reporter **210** may act to actively update reporting for applications in a user interface through which a user can select applications.

Reporter **210** may determine which reports **110** indicate changes to an application since the user last viewed or interacted with the application, though in some other cases an

entity providing the report instead determines this (e.g., remote provider **104**, report compiler **106**, or application **212**).

Further, in some embodiments reporter **210** receives reports along with an indication of a presentation format in which the reports are preferred to be presented. This presentation format preference may be selected by an entity associated with the respective application, such as a social-networking server associated with a social-networking application, or based on user preference. Various examples of presentation formats **222** are illustrated in FIG. **6**. Large selectable label **602**, for example, presents only a most-recent change along with three portions of content for that change. Small selectable label **610**, conversely, presents only a change indicator **616** with no content.

Returning to method **500**, block **504** receives selection of one of the multiple, selectable labels, such as a label reporting a change. The selection received can be to various areas (or sections of areas) of a selectable label, responsive to which reporter **210** presents the application associated with the selectable label, though how presented may vary based on which area is selected. As noted, the application associated with a selectable label may or may not be executing. Consider, for example, large selectable label **602** and another large selectable label **622**. Label **602** is associated with a “News” application of applications **212** of FIG. **2**. Label **622** is associated with an email application of applications **212**. For this example, assume that the News application is not executing and that reports are received from a remote entity associated with the News application, such as remote provider **104**. Assume also that the email application is local to computing device **102** and is executing. Reports **110** for the email application are received by reporter **210** direct from the email application.

Continuing the ongoing embodiment, assume that reporter **210** receives a selection to application-identifying area **618**, such as through a mouse selector or a gesture via a touch-screen displaying user interface **600**, such as one of displays **206** shown in FIG. **2**.

Block **506** presents the application associated with the selected label and/or content associated with a change reported in the selected label. When block **506** presents the application, it does so in a manner in which the application may be interacted with, e.g., in an immersive or windows-based environment. This presentation may also or instead present content associated with a reported change but not necessarily the application itself as described in further detail below.

This presentation may include launching the application and then presenting it, such as in a window via windows-based environment module **216** or in an immersive environment via immersive environment module **218**, both of FIG. **2**. If the application is already executing, a launch is not needed. Responsive to receiving a selection of a selected label, the techniques may provide a visual indication of the selection, such as to animate the selected portion of the label. By so doing, the techniques reinforce the type of selection.

Concluding the ongoing embodiment, reporter **210** presents the News application in response to selection of selectable label **602**, here to application-identifying area **618**. This presentation includes launching the News application, as it was not executing at selection. As noted, reporter **210** may present and/or launch an application through an instruction to another entity, such as the above-mentioned modules **216** or **218**.

FIG. **7** illustrates an example presentation of the News application in an immersive environment **700**. Because appli-

cation-identifying area **618** was selected, a default presentation (here a home page) for the News application is shown. This home page is shown at **702** and includes various headlines **704** for selection, one of which is the most-recent article also shown at **606** in FIG. **6**. While this title is shown, the home page is presented rather than a webpage having a full representation of the content or otherwise devoted to the article, which would otherwise be presented had the selection been made to reporting area **620**.

By way of another example, consider a case where selection is received at block **504** through large selectable label **622** of FIG. **6**, which is expanded for clarity in FIG. **8**. Label **622** is shown having an application-identifying area **802** and a reporting area **804**. Reporting area **804** includes four selectable sections reporting changes, sections **806**, **808**, **810**, and **812**. Each of selectable sections **806**, **808**, and **810** reports content associated with a change, here each a sender and a subject line of an email. Section **812** reports five changes, here that five other emails have also been received since the email application was last viewed by the user. In this example, selection is received to section **808** through a gesture **814** made to a touch screen.

Reporter **210**, at block **506**, presents the selected email application and content of the email associated with the selection. Here the application is currently executing, therefore reporter **210** does not launch the email application. Presentation of the email application and the change reported, rather than a home or default presentation, is shown in FIG. **9** at **902** in a window **904**. Note that reporter **210** may cause this presentation in a window superimposed over the application-selectable user interface or hide the user interface and present the window in a different environment. Here reporter **210** hides the user interface and presents the email application at **902** showing content associated with the selection received at **906**.

In still another example, consider again FIG. **8**. In some cases selection made to a selectable label indicating a change may present content associated with that change. This presentation may be commensurate with presentation of the application as described above. In some other cases, the content is shown without hiding the user interface and/or without presenting the application in a conventional manner. Assume, for the selection **814** of FIG. **8**, that reporter **210**, rather than presenting the email application and the content, instead presents content associated with the change on its own. In this case, more or all of the content associated with that change is shown. Assume, for example, that most or all of the content associated with a new email from Sue was received in one of the reports **110**. Reporter **210** may present the rest of this content, such as within or superimposed over user interface **600**.

An example of this is shown in FIG. **10**, which shows a pop-up window **1002** having more content associated with a reported change. This may also be used to expand the “5 More Emails” shown at section **812** in FIG. **8** to show, for example, the sender and subject lines for those emails. This may be used to show some content associated with a change for which no content is currently shown, such as change indicator **616** of FIG. **6**. This alternative operation of block **506** permits a user to select to see more content associated with a change, which in some cases is enough for the user to forgo selecting the application generally.

The preceding discussion describes methods for application reporting in an application-selectable user interface. These methods are shown as sets of blocks that specify operations performed but are not necessarily limited to the order shown for performing the operations by the respective blocks.

Aspects of these methods may be implemented in hardware (e.g., fixed logic circuitry), firmware, software, manual processing, or any combination thereof. A software implementation represents program code that performs specified tasks when executed by a computer processor. The example methods may be described in the general context of computer-executable instructions, which can include software, applications, routines, programs, objects, components, data structures, procedures, modules, functions, and the like. The program code can be stored in one or more computer-readable memory devices, both local and/or remote to a computer processor. The methods may also be practiced in a distributed computing environment by multiple computing devices.

These techniques may be embodied on one or more of the entities shown in environment 100 of FIG. 1 (and as detailed in FIGS. 2-4) and/or example device 1100 described below, which may be further divided, combined, and so on. Thus, environment 100 and/or device 1100 illustrate some of many possible systems or apparatuses capable of employing the described techniques. The entities of environment 100 and/or device 1100 generally represent software, firmware, hardware, whole devices or networks, or a combination thereof. In the case of a software implementation, for instance, the entities (e.g., reporter 210 of FIG. 2, report generator 306 of FIG. 3, and compiling module 406 of FIG. 4) represent program code that performs specified tasks when executed on a processor (e.g., processor(s) 202, 302, and 402, respectively). The program code can be stored in one or more computer-readable memory devices, such as computer-readable storage media 204, 304, or 404 or computer-readable media 1114 of FIG. 11. The features and techniques described herein are platform-independent, meaning that they may be implemented on a variety of commercial computing platforms having a variety of processors.

Example Apparatus

FIG. 11 illustrates an apparatus having various components, here as part of an example device 1100, which can be implemented as any type of client, server, and/or computing device as described with reference to the previous FIGS. 1-10 to implement techniques for application reporting in an application-selectable user interface. In embodiments, device 1100 can be implemented as one or a combination of a wired and/or wireless device, as a form of television client device (e.g., television set-top box, digital video recorder (DVR), etc.), consumer device, computer device, server device, portable computer device, user device, communication device, video processing and/or rendering device, appliance device, gaming device, electronic device, and/or as another type of device. Device 1100 may also be associated with a user (e.g., a person) and/or an entity that operates the device such that a device describes logical devices that include users, software, firmware, and/or a combination of devices.

Device 1100 includes communication devices 1102 that enable wired and/or wireless communication of device data 1104 (e.g., received data, data that is being received, data scheduled for broadcast, data packets of the data, etc.). The device data 1104 or other device content can include configuration settings of the device, media content stored on the device, and/or information associated with a user of the device. Media content stored on device 1100 can include any type of audio, video, and/or image data. Device 1100 includes one or more data inputs 1106 via which any type of data, media content, and/or inputs can be received, such as user-selectable inputs, messages, music, television media content, recorded video content, and any other type of audio, video, and/or image data received from any content and/or data source.

Device 1100 also includes communication interfaces 1108, which can be implemented as any one or more of a serial and/or parallel interface, a wireless interface, any type of network interface, a modem, and as any other type of communication interface. The communication interfaces 1108 provide a connection and/or communication links between device 1100 and a communication network by which other electronic, computing, and communication devices communicate data with device 1100.

Device 1100 includes one or more processors 1110 (e.g., any of microprocessors, controllers, and the like), which process various computer-executable instructions to control the operation of device 1100 and to enable application reporting in an application-selectable interface. Alternatively or in addition, device 1100 can be implemented with any one or combination of hardware, firmware, or fixed logic circuitry that is implemented in connection with processing and control circuits which are generally identified at 1112. Although not shown, device 1100 can include a system bus or data transfer system that couples the various components within the device. A system bus can include any one or combination of different bus structures, such as a memory bus or memory controller, a peripheral bus, a universal serial bus, and/or a processor or local bus that utilizes any of a variety of bus architectures.

Device 1100 also includes computer-readable storage media 1114, such as one or more memory devices that enable persistent and/or non-transitory data storage (i.e., in contrast to mere signal transmission), examples of which include random access memory (RAM), non-volatile memory (e.g., any one or more of a read-only memory (ROM), flash memory, EPROM, EEPROM, etc.), and a disk storage device. A disk storage device may be implemented as any type of magnetic or optical storage device, such as a hard disk drive, a recordable and/or rewriteable compact disc (CD), any type of a digital versatile disc (DVD), and the like. Device 1100 can also include a mass storage media device 1116.

Computer-readable storage media 1114 provides data storage mechanisms to store the device data 1104, as well as various device applications 1118 and any other types of information and/or data related to operational aspects of device 1100. For example, an operating system 1120 can be maintained as a computer application with the computer-readable storage media 1114 and executed on processors 1110. The device applications 1118 may include a device manager, such as any form of a control application, software application, signal-processing and control module, code that is native to a particular device, a hardware abstraction layer for a particular device, and so on.

The device applications 1118 also include any system components or modules to implement techniques for application reporting in an application-selectable user interface. In this example, the device applications 1118 can include reporter 210 and applications 212.

CONCLUSION

Although embodiments of techniques and apparatuses for application reporting in an application-selectable user interface have been described in language specific to features and/or methods, it is to be understood that the subject of the appended claims is not necessarily limited to the specific features or methods described. Rather, the specific features and methods are disclosed as example implementations for application reporting in an application-selectable user interface.

11

What is claimed is:

1. A computing device comprising:
one or more computer processors; and
one or more computer-readable storage media having
instructions stored thereon that, responsive to execution 5
by the one or more computer processors, perform operations comprising:
presenting a user interface having multiple selectable
labels associated with multiple applications, respectively, at least one of the multiple selectable labels: 10
reporting a first change in a first area of the selectable
label, the first change associated with first content
of the application to which the selectable label is
associated; and
reporting a second change in a second area of the 15
selectable label, the second change associated with
second content of the application to which the
selectable label is associated;
receiving selection of the one of the multiple selectable
labels through the first area or the second area; and 20
responsive to selection of the selected label, presenting,
through the application associated with the selected
label, the first content responsive to selection of the
first area or the second content responsive to selection
of the second area.
2. A computing device as described in claim 1, wherein
another of the multiple selectable labels includes an area that
reports a change and another area that does not report the
change and further comprising, on selection of the other area
that does not report the change, presenting the other selected 30
application in a default presentation of the other selected
application not presenting content associated with the
change.
3. A computing device as described in claim 1, wherein
reporting the first or second changes presents a portion of the 35
first or second content associated with the first or second
changes, respectively, within the selectable label.
4. A computing device as described in claim 1, the operations further comprising:
receiving a report indicating a third change, the third 40
change associated with one of the multiple applications;
and
altering one of the multiple, selectable labels to report the
third change.
5. A computing device as described in claim 4, wherein the 45
third change is associated with a different one of the multiple
applications than the application associated with the selected
label.
6. A computing device as described in claim 1, wherein the
application associated with the selected label is executing 50
prior to presenting the application associated with the
selected label and further comprising receiving a report having
the change from the application associated with the
selected label.
7. A computing device as described in claim 1, wherein the 55
application associated with the selected label is not executing
prior to presenting the application associated with the
selected label and further comprising receiving a report having
the change from a remote entity associated with the application
associated with the selected label.
8. A computing device as described in claim 1, wherein the
first or second change is a change to content of the application
associated with the selected label relative to a most-recent
prior presentation of the application associated with the
selected label.
9. A computing device as described in claim 1, wherein the
application associated with the selected label, when selected,

12

is not executing, and wherein presenting the application associated with the selected label includes launching the application.

10. A computing device comprising:
one or more computer processors; and
one or more computer-readable storage media having
instructions stored thereon that, responsive to execution
by the one or more computer processors, perform operations comprising:
enabling, through a single user interface, selection of
two or more applications through selectable labels
associated with each of the two or more applications,
the selectable labels each having multiple areas
reporting respective multiple changes to the applications
to which each is associated; and
responsive to selection of one of the multiple areas in
one of the selectable labels, causing content to be
presented, the content associated with the change
reported in the selected one of the multiple areas.
11. A computing device as described in claim 10, wherein
causing the content associated with the change to be presented
presents the content within or superimposed over the
user interface.
12. A computing device as described in claim 10, wherein
causing the content associated with the change to be presented
executes the selected application and hides the user
interface.
13. A computer-implemented method comprising:
receiving a first report for a first application, the first report
indicating a change to the first application;
receiving a second report for a second application, the
second report indicating a change to the second application;
receiving a third report for the first application, the third
report indicating another change to the first application;
receiving a fourth report for the second application, the
fourth report indicating another change to the second
application;
presenting a user interface having first and second selectable
labels, the first selectable label associated with the
first application and reporting the changes, in respective
areas of the first selectable label, to the first application,
the second selectable label associated with the second
application and reporting the changes in respective areas
of the second selectable label, to the second application;
receiving selection of the first or second selectable label
through one of the respective areas of the first or second
selectable label in which one of the changes to the first or
second application, respectively, is indicated; and
responsive to selection of the selected first or second selectable
label, presenting the selected first or second application
associated with the selected first or second selectable
label, the presenting showing content associated
with the one of the changes to the first or second application
indicated in the one of the respective areas
through which the selected first or second selectable
label is selected.
14. A computer-implemented method as described in claim
13, wherein presenting the user interface reporting the
changes to the first application includes portions of content
associated with the changes to the first application and within
the first selectable label.
15. A computer-implemented method as described in claim
13, wherein the first application is executing when the first
report is received and the second application is not executing
when the second report is received.

16. A computer-implemented method as described in claim 13, further comprising receiving, after presenting the user interface, a fifth report associated with a third change to the first application and further comprising reporting the third change within the first selectable label by rotating off one of the changes to the first application. 5

* * * * *